COAL UTILIZATION AND DISTRIBUTION ACT OF 1981

HEARINGS
BEFORE THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
NINETY-SEVENTH CONGRESS
SECOND SESSION
ON
S. 1844
A BILL TO FACILITATE THE NATIONAL DISTRIBUTION AND UTILIZATION OF COAL

MAY 10 AND JUNE 8, 1982

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COAL UTILIZATION AND DISTRIBUTION ACT OF 1981

MONDAY, MAY 10, 1982

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 3110, Dirksen Office Building, Hon. James A. McClure, chairman, presiding.

Present: Senators McClure, Hatfield, Murkowski, Nickles, and Johnston.

Also present: Gary Ellsworth, counsel; and Linda Mason, professional staff member for the minority.

OPENING STATEMENT OF HON. JAMES A. McCLURE, A U.S. SENATOR FROM THE STATE OF IDAHO

The CHAIRMAN. Good morning. As we begin to review this legislation, I want to enunciate this Senator's initial thoughts in the spirit of cooperation and fairness for all interested members and affected parties.

Coal slurry pipelines may add an important additional dimension to this Nation's coal transportation capabilities. Any legislative initiative, however, must be assessed and scrutinized most closely and carefully in the area of Federal-State relations, which must be involved in any proposed extension of Federal powers of eminent domain.

The administration has conducted such an assessment and concluded that opposition to legislation is justified. Additionally, and perhaps even more important, such a legislative initiative must constructively, positively, and predictably address the several interrelated water law issues attendant on any extension of Federal authorities to support interstate coal slurry pipelines.

Senators from both Eastern and Western States whose waters could potentially be affected by coal slurry pipelines under Federal authority must, I repeat, must, be assured that those waters will remain fully protected, pursuant to such authorities. I am interested, for example, in maintaining the integrity of the Columbia River Basin. South Dakota has a vital interest in protecting its recently reached agreement, providing water to the ETSI pipeline.

At this point, I remain openminded on this bill, and would hope that all issues will be fully reviewed in these hearings, but I think it is important to give members of the committee my initial thoughts on this legislation.

We have quite a few distinguished colleagues with us today, as well as an impressive array of witnesses. I hope that we can provide a satisfactory forum for all sides, and that these two hearings will result in a well-balanced discussion of the viewpoints of all concerned parties.

Before proceeding to hear our colleagues, Senator Johnston, do you have a statement you'd like to make at this time?

Senator JOHNSTON. Yes, thank you. I have a written statement I'd like to put in the record and just add these comments.

[The prepared statement of Senator McClure and the text of S. 1844 follow:]

CHAIRMAN'S STATEMENT
HEARING ON S1844

Good morning. Today the Committee on Energy and Natural Resources will hear testimony on S.1844, the Coal Distribution and Utilization Act of 1981. The purpose of the bill is to facilitate the development of interstate coal pipeline distribution systems by granting the Federal power of eminent domain to those interstate pipelines which are determined to be in the national interest. Authority for such determination is placed in the Secretary of Energy. The issue is one which has been discussed for several years, and has many ramifications. Granting Federal power of eminent domain requires careful scrutiny of its implications for open competition, for providing market outlets and opportunities for coal producers, for providing adequate service and supplies for users including utilities, for national security, and for environmental effects.

I believe we must be dedicated to the promotion of energy self-sufficiency and alternative modes of transportation. At the same time, we must also take carefully into account the influence such a development will have on economic and financial considerations, the free market and competition, and the relative advantages and availability of all energy resources. Another area which must be integrated into the argument is the respective responsibilities and rights of the Federal government and of the States.

S.1844, which was introduced by our distinguished colleague from Louisiana, Mr. Johnston, is a new attempt to address a problem which has existed for some years. This Committee held hearings in May and June of 1978 on a bill, S.2665, which also provided coal slurry pipelines with Federal eminent domain authority, but which did not address many of the legal and technical questions related to water. In view of the significant concerns of several members of the Committee, including myself, I have scheduled a second day of hearings on S.1844, to consider specifically those water issues which relate to S.1844 and development of coal slurry pipeline systems. The hearing

WILL BE HELD ON MAY 20. WE WOULD HOPE THAT THE TESTIMONY AT THAT TIME WILL ENCOMPASS THE CONSTITUTIONAL, NATIONAL AND STATE ASPECTS OF THE WATER QUESTION.

AS WE BEGIN TO REVIEW THIS LEGISLATION, I WANT TO ENUNCIATE THIS SENATOR'S INITIAL THOUGHTS, IN THE SPIRIT OF COOPERATION AND FAIRNESS FOR ALL INTERESTED MEMBERS AND AFFECTED PARTIES. COAL SLURRY PIPELINES MAY ADD AN IMPORTANT ADDITIONAL DIMENSION TO THIS NATION'S COAL TRANSPORTATION CAPABILITIES. ANY LEGISLATIVE INITIATIVE, HOWEVER, MUST BE ASSESSED AND SCRUTINIZED MOST CLOSELY AND CAREFULLY IN THE AREA OF FEDERAL-STATE RELATIONS, WHICH MUST BE INVOLVED IN ANY PROPOSED EXTENSION OF FEDERAL POWERS OF EMINENT DOMAIN. THE ADMINISTRATION HAS CONDUCTED SUCH AN ASSESSMENT AND CONCLUDED THAT OPPOSITION TO LEGISLATION IS JUSTIFIED. ADDITIONALLY, AND PERHAPS EVEN MORE IMPORTANT, SUCH A LEGISLATIVE INITIATIVE MUST CONSTRUCTIVELY, POSITIVELY AND PREDICTABLY ADDRESS THE SEVERAL INTERRELATED WATER LAW ISSUES ATTENDANT ON ANY EXTENSION OF FEDERAL AUTHORITIES TO SUPPORT INTERSTATE COAL SLURRY PIPELINES. SENATORS FROM BOTH EASTERN AND WESTERN STATES WHOSE WATERS COULD POTENTIALLY BE AFFECTED BY COAL SLURRY PIPELINES UNDER FEDERAL AUTHORITIES MUST, I REPEAT, MUST, BE ASSURED THAT THOSE WATERS WILL REMAIN FULLY PROTECTED, PURSUANT TO SUCH AUTHORITIES. I AM INTERESTED, FOR EXAMPLE, IN MAINTAINING THE INTEGRITY OF THE COLUMBIA RIVER BASIN. SOUTH DAKOTA HAS A VITAL INTEREST IN PROTECTING ITS RECENTLY REACHED AGREEMENT, PROVIDING WATER TO THE ETSI PIPELINE.

AT THIS POINT, I REMAIN OPEN-MINDED ON THIS BILL, AND WOULD HOPE THAT ALL ISSUES WILL BE FULLY REVIEWED IN THESE HEARINGS, BUT I THINK IT IS IMPORTANT TO GIVE MEMBERS OF THE COMMITTEE MY INITIAL THOUGHTS ON THIS LEGISLATION.

WE HAVE QUITE A FEW DISTINGUISHED COLLEAGUES WITH US TODAY, AS WELL AS AN IMPRESSIVE ARRAY OF WITNESSES. I HOPE THAT WE CAN PROVIDE A SATISFACTORY FORUM FOR ALL SIDES, AND THAT THESE TWO HEARINGS WILL RESULT IN A WELL-BALANCED DISCUSSION OF THE VIEWPOINTS OF ALL CONCERNED PARTIES.

X

97TH CONGRESS
1ST SESSION

S. 1844

To facilitate the national distribution and utilization of coal.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 12 (legislative day, NOVEMBER 2), 1981

Mr. JOHNSTON (for himself, Mr. WEICKER, Mr. BRADLEY, Mr. BUMPERS, Mr. MURKOWSKI, Mrs. HAWKINS, and Mr. MATSUNAGA) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To facilitate the national distribution and utilization of coal.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Coal Distribution and Utilization Act of 1981".

FINDINGS AND PURPOSE

SEC. 2. (a) The Congress hereby finds and declares that—

(1) the continuing dependence of the United States on foreign sources for petroleum and petroleum

products entails grave national security risks, results in major balance-of-payment deficits and increases in inflation and unemployment in the domestic economy;

(2) the United States possesses extensive coal reserves that must be produced, distributed, and utilized to reduce the Nation's dependence on imported petroleum;

(3) domestic coal reserves cannot be developed and used for fuel unless adequate systems exist for the efficient and economic distribution of large quantities of coal across great distances;

(4) the Nation's coal distribution system must include interstate coal pipeline systems that will assist the Nation to develop efficiently and use its coal resources;

(5) the construction of interstate coal pipeline systems to distribute domestic coal will be facilitated by granting the power of eminent domain to certain interstate coal pipeline distribution systems; and

(6) the construction of interstate coal pipeline distribution systems is a beneficial public use that justifies granting the Federal power of eminent domain to those systems for which a finding of national interest has been made pursuant to this Act.

(b) The purpose of this Act is to facilitate the development of interstate coal pipeline distribution systems by granting the Federal power of eminent domain to those interstate coal pipeline distribution systems that are determined to be in the national interest.

DEFINITIONS

SEC. 3. For purposes of this Act—

(1) the term "coal" means any of the recognized classifications of coal, including anthracite, bituminous, semibituminous, subbituminous, and lignite;

(2) the term "interstate coal pipeline distribution system" means any pipeline system for the distribution of coal in a liquid or solid state, whether alone or mixed with other substances, from one or more points outside a State to one or more points within a State or between two or more points within a State through another State. An interstate coal pipeline distribution system includes the line pipe, valves, pumping stations, coal-collection lines or systems, and similar equipment or facilities used or useful in the distribution of coal;

(3) the term "Secretary" means the Secretary of Energy or his successor; and

(4) the term "State" means a State of the United States and the District of Columbia.

EMINENT DOMAIN AUTHORITY

SEC. 4. (a) AUTHORITY TO MAKE NATIONAL INTEREST FINDINGS.—Upon application of any person proposing to construct an interstate coal pipeline distribution system, the Secretary of Energy or his successor shall determine whether the construction of such system shall be in the national interest.

(b) FINDINGS.—In making a determination under subsection (a) with respect to any proposed interstate coal pipeline distribution system, the Secretary of Energy shall make findings concerning the extent to which the system—

(1) would help meet national needs for coal distribution and utilization considering, among other matters, alternate routes, or means of distributing coal;

(2) would enhance competition and provide new market outlets and opportunities for coal producers, including small and independent producers;

(3) would contribute to the national security by encouraging the displacement of imported petroleum, petroleum products, and coal with domestic coal; and

(4) would affect the environment, as compared with the impact of other routes or modes of distribution or other methods of utilization of the coal resources involved.

(c) EMINENT DOMAIN AUTHORITY.—(1) Any person proposing to build an interstate coal pipeline distribution system, the construction of which has been determined by the Secretary to be in the national interest, may acquire rights-of-way over, under, upon, or through private lands by exercise of the power of eminent domain in the United States district court for the district in which such lands are located or in the appropriate court of the State in which such lands are located. The practice and procedure in any action or proceeding to acquire rights-of-way under this section in a district court of the United States shall conform as nearly as may be practicable with the practice and procedure in a similar action or proceeding in the courts of the State where the property is situated.

(2) Nothing in this section shall be construed to permit any person to acquire any right to take, use, or develop water through exercise of the power of eminent domain.

(3) No right-of-way may be acquired through exercise of the power of eminent domain under this subchapter if such right-of-way is over, under, upon, or through—

(i) any land which is part of an historic site of National, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof; or

(ii) any land designated as wilderness or wildlife refuge in accordance with applicable law by the duly constituted authority; unless there is no feasible and prudent alternative to the acquisition of such right-of-way and reasonable planning is made to minimize harm to such site resulting from the acquisition.

(d) RULES AND REGULATIONS.—The Secretary shall promulgate such rules and regulations as are necessary for the expeditious exercise of the authority granted in this section.

AMENDMENT OF THE MINERAL LANDS LEASING ACT

SEC. 5. Subsection 28(a) of the Mineral Lands Leasing Act of 1920, as amended, is further amended by inserting the word "coal," between "natural gas," and "synthetic".

PRESERVATION OF STATE WATER LAW

SEC. 6. (a) The United States or its agents, permittees, licensees, or transferees or any interstate coal pipeline distribution system found to be in the national interest under section 4 of the Act shall not reserve, appropriate, use, divert, dedicate, or claim water within any State for an interstate coal pipeline distribution system found to be in the national interest under section 4 of this Act, unless such reservation, appropriation, use, diversion, dedication, or claim takes place pursuant to State substantive and procedural law.

(b) Pursuant to the commerce clause in article I, section 8, of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions terminating use, on permits or authorizations for the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system found to be in the national interest under section 4 of this Act shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.

(c) Nothing in this Act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

SEC. 7. Nothing in this Act shall be construed to authorize the further regulation of, or to relate to or otherwise affect the regulation of, interstate common carriers.

STATEMENT OF HON. J. BENNETT JOHNSTON, A U.S. SENATOR FROM THE STATE OF LOUISIANA

Senator JOHNSTON. There is very little I can say that I haven't said many times before, both in hearings before this committee and elsewhere and both this year and years before because this is a very, very old issue, one that this committee has acted on before, and I hope, and I believe, that this is finally the year for action on the coal slurry pipelines.

There is a distinguished group of cosponsors of this legislation. Eight on this committee, 13 in the Senate altogether. I think that there has at last been a realization that coal slurry pipelines will not hurt the railroads. Since the Staggers Rail Act and deregulation and the increase in profits, I don't think anyone is worried about the railroads going broke. Not these days, and not with the prices that they're able in a deregulated market to charge.

Second, the amount of coal that will be hauled on coal slurry pipelines can only be about 19 percent, according to my figures, of the increase in coal haulings. So to take 19 percent of the incremental increase is hardly going to put the railroads out of business.

And finally, Mr. Chairman, on the issue of water, I think the water language which we have in this bill is regarded by most every western Senator I know as being a substantive victory for western water interests because it gives them greater control over their own resources than they had actually before the bill.

So Mr. Chairman, I hope we'll move from these hearings to an early, markup on this bill so that we can pass the floor this year. I would hate to see the bill delayed so that we are caught in a last minute rush, and I believe the chairman is committed to give us our fair chance to have the matter considered in the committee and on the floor in time to complete action this year.

[The prepared statement of Senator Johnston follows:]

STATEMENT OF SENATOR JOHNSTON

Mr. Chairman, today this Committee will once again meet to give consideration to and hear testimony on legislation to grant Federal eminent domain rights to coal slurry pipelines. There is very little that I can say about this issue that I have not already said numerous times. Indeed, there is very little that we can hear about this issue that has not already been heard many times. Rather, I believe this hearing will reinforce what we all already know--coal slurry pipelines offer enormous benefits to this nation in terms of reduced dependence on oil and gas, reduced transportation rates for utility customers, the creation of thousands of coal mining and constructions jobs, and an improvement in our nation's balance of payments resulting from reduced oil imports and increased coal exports.

I also suspect that the testimony will raise the two concerns relating to railroads and water which have so far prevented coal slurry pipeline legislation from becoming law. Railroads have long argued that coal pipelines will have an adverse impact on the domestic rail industry. But, in 1980 the Staggers Rail Act was passed, essentially deregulating rail rates and allowing profits to rise to all time highs. Further, the National Economic Research Associates estimate that even if all proposed slurry pipelines were built and operated at full capacity, they would only be able to carry about 19% of the increase in coal transportation which, obviously, is a much smaller fraction of total coal haulage. Certainly the combination of these two factors indicates that railroads stand to suffer no significant harm from passage of this legislation. Indeed, testimony by the Burlington Northern in front of Senator Baucus and the Judiciary Committeee indicates that railroads, themselves, are now giving consideration to building coal slurry pipelines.

The second major issue, that of water, is one of much greater substance. Because coal pipelines transport crushed coal mixed with water, legitimate questions are aroused over water rights in the West. However, I am firmly convinced, and I believe that the testimony will show, that the water rights langauge of S. 1844 represents both a substantive and a political victory for Western States. The protections afforded in this legislation are much greater than those existing under current law. Further, this water rights language establishes a precedent for future energy development projects in the resource-rich West. In view of alternatives, such as coal gasification, which uses twice as much water, or mine mouth generation, which uses seven times as much water, I believe many Western States have reached the logical conclusion that coal slurry pipelines are the preferable method for Western coal development.

Mr. Chairman, S. 1844 currently has thirteen cosponsors, eight of which serve on this committee. I am firmly convinced that the spirit of this Committee weighs heavily towards favorably reporting S. 1844, just as it did in 1974 when you and I joined with Senators Hatfield, Jackson and Metzenbaum to report a measure with even less water protections than this bill. I look forward to working with you and the other members of this Committee towards a speedy passage of this most important legislation.

The **Chairman.** I hear you, Senator.

Our first witness, the Senator.

Senator Hatfield, I understand you have no opening statement at this time?

Our first witness this morning is our distinguished colleague and friend from Arizona, Senator Goldwater.

STATEMENT OF HON. BARRY GOLDWATER, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator **Goldwater.** Thank you, Mr. Chairman, and members of the committee. I am pleased to be a cosponsor of S. 1844 by Senator Johnston, to provide Federal eminent domain power for the construction of coal slurry pipelines. This idea has been around since at least the early 1960's and I have always thought it was a good thing.

Coal slurry pipelines can contribute substantially to our Nation's economic condition, our energy independence, and our export position.

Mr. Chairman, we have the Nation's only operating coal slurry pipelines in Arizona. It went into commercial operation 12½ years ago and has proven to be both a reliable and economical method of moving coal. This pipeline which is known as the Black Mesa Pipeline, transports 4 million tons of coal each year across 273 miles of some of the most rugged terrain in my State to a powerplant located a mile inside the State of Nevada. It has just operated 3 months in a row without even an hour's interruption of service.

You may be interested to know that the Arizona pipeline is affiliated with a railroad. Southern Pacific Pipeline Co. is a sister company to the Southern Pacific Railroad. So pipelines are not necessarily incompatible with railroads.

In fact, I believe that coal demand will grow enough in future years so that there will be plenty of business to be shared among railroads and pipelines, with railroads having a real increase in traffic.

Mr. Chairman, before having my name added to this bill, I probably examined the State water rights issue more than anything else. Well, I can tell you that I am personally satisfied with the language of the bill. It protects and will not damage State authority over water matters.

But you don't have to rely on my interpretation. I will share with you a supporting letter I have just received on this subject from Mr. West Steiner, who is director of the Arizona Department of Water Resources. Wes is one of the country's top professionals in this area, and is a licensed civil engineer with over 30 years of experience in water matters. He is also a member and former chairman of the Western States Water Council.

In his letter, Mr. Steiner states, without any qualification, that sections 4(c) (2) and (6) of S. 1844,

> Would provide a very high level of protection of the rights of the States to allocate and manage the use of limited water resources and would establish a valuable precedent in Federal law requiring adherence to State water law for projects found in the national interest.

Now please note, Mr. Chairman, that Arizona's water resources director not only believes the bill protects the rights of the States, he feels it would set a valuable precedent that gives a legal victory to the States.

In response to my inquiry whether he might wish the Senate to consider any amendments to the water law sections of S. 1844, Mr. Steiner added the following comments, and I quote:

> I have no amendments to suggest. The proposed language effectively protects State's rights as regards water allocation and use and I would welcome its enactment and incorporation in the Federal statutes.

Mr. Chairman, I ask that my exchange of letter with Mr. Steiner may appear in the record.

The CHAIRMAN. Without objection, so ordered.

Senator GOLDWATER. Mr. Chairman, I would add just one point on the subject of water rights. I am convinced the language of S. 1844 will be upheld and enforced in the courts as intended by the sponsors of the bill.

For one thing, we have two fine Arizonans sitting on the Supreme Court who are well versed in the State water law. For another, we have a decision of the Supreme Court written by an Arizonan, Justice William Rehnquist, which proves that congressional directives protecting State water rights are valid and will be successfully enforced against claims of Federal supremacy. I am referring to the case of *California* v. *United States*, decided in 1978.

Finally, Mr. Chairman, I will address the issue of State eminent domain authority. Why do I, as a conservative, think the Federal Government should be given authority to allow pipelines to pass through States which may not have granted similar permission?

Frankly, I am persuaded that this is an area of overriding national and international importance which all States cannot adequately deal with, often because of legal problems in their own State constitutions.

Also, I would point out that there are precedents for Federal eminent domain statutes. Railroads themselves enjoyed national eminent domain authority. Oil pipelines and natural gas pipelines have been granted similar authority.

The grant of rights for coal slurry pipelines is not automatic, but is wrapped in strong safeguards to protect the general public interest and I think it will benefit our Nation's economy and security if we would move forward with the bill.

I thank you Mr. Chairman.

[The letters referred to by Senator Goldwater follow:]

BARRY GOLDWATER
ARIZONA

United States Senate
WASHINGTON, D.C. 20510

COMMITTEES:
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SCIENCE, TECHNOLOGY, AND SPACE
INDIAN AFFAIRS

April 22, 1982

Mr. Wes Steiner, Director
Department of Water Resources
222 North Central Avenue, Suite 850
Phoenix, Arizona 85004

Dear Wes:

As you know, I am a cosponsor of S. 1844, a bill to provide eminent domain authority for the construction of interstate coal pipelines which meet certain national needs. Before adding my name to the bill, I probably spent more time reviewing whether or not the bill could have any negative impact on state water rights than any other issue surrounding the bill. I am persuaded that specific provisions of the bill in section 4(c)(2) and section 6 would provide total protection of state control of water, and might provide a tangible precedent in the statutory law for nailing down the superior status of state water law.

A copy of the bill is enclosed for your information.

A hearing has now been set on the bill for May 10, by the Senate Committee on Energy and Natural Resources. I would appreciate it very much if you would review the provisions of the bill relating to state water law and provide me with your analysis and comments as to the potential effectiveness of these safeguards. Assuming that Congress reaches a decision that interstate coal pipelines are in the national interest, do you feel the language of the bill would adequately secure state water law and state sovereignty over the allotment of water? With your permission, I would like to share your reply and any suggestions you may have with my colleagues at the May 10 hearings.

Sincerely,

Barry Goldwater

State of Arizona
DEPARTMENT OF WATER RESOURCES
99 E. Virginia Avenue Phoenix, Arizona 85004

BRUCE BABBITT, Governor
WESLEY E. STEINER, Director

April 27, 1982

The Honorable Barry Goldwater
United States Senator
Senate Office Building
Washington, D.C. 20510

Dear Barry:

This is in response to your request for comments on sections 4(c)(2) and 6 of S.1844, a bill to provide eminent domain authority for the construction of interstate coal pipelines determined to be in the national interest. I concur in your assessment that these two sections would provide a very high level of protection of the rights of the states to allocate and manage the use of limited water resources and would establish a valuable precedent in federal law requiring adherence to state water law for projects found in the national interest.

I have no amendments to suggest. The proposed language effectively protects state's rights as regards water allocation and use and I would welcome its enactment and incorporation in the federal statutes.

You have my permission to share this reply with your collegues. I very much appreciate the opportunity to comment.

Sincerely,

Wesley E. Steiner
Director

WES:pj

Think Conservation!
Office of Director 255-1554
Administration 255-1550, Water Resources and Flood Control Planning 255-1566, Dam Safety 255-1541,
Flood Warning Office 255-1548, Water Rights Administration 255-1581, Hydrology 255-1586.

The **Chairman**. Thank you, Senator Goldwater. It's always a pleasure to have you before this committee. I know of your long interest in the subject matter.

Are there any questions?

Senator **Hatfield**. Senator Goldwater, as you know the energy projection demands have been dropped rather dramatically in the Pacific Northwest. We are in the process of shutting down some nuclear powerplants that were under construction. We know that in part the Alaska Natural Gas Pipeline has now a delay of about 2 more years. We've had some reduction in oil imports.

My question really is, a third type of major energy development such as is proposed in this bill, in the light of the so-called energy demand drops, how do you assess that? Is this something peculiar only to the Northwest or are these drops in demands for energy or do you see this offset elsewhere in the country?

Senator **Goldwater**. I think it's something peculiar to the United States. Why we should stop the construction of a pipeline out of Alaska, I don't know. And why we should suddenly see a decrease in the importation of petroleum, I don't know. I can't answer your question other than that because powers have ruled it that way.

Senator **Hatfield**. Do you know any other summary of State positions, vis-a-vis the water rights that are addressed in this legislation?

You quoted the officer from the State of Arizona. Do you know of other States in terms of what their status or their position is on this?

Senator **Goldwater**. I wouldn't know what their position is exactly on this, but having been a member of the Interstate Stream Commission that wrote the Colorado Compact years ago, I can tell you that the attitude of the Basin States would probably be similar to the attitude of Arizona. And I can tell you, members from the West know, as I told Jimmy Carter when he wanted to cut off water rights in the West, I said there is one sure way to start a war in the West, and that is to meddle around with our water. Women and gold are all right.

[Laughter].

Senator **Hatfield**. Thank you very much.

The **Chairman**. Thank you again.

We will next hear from our colleague from North Dakota, Senator Mark Andrews.

STATEMENT OF HON. MARK ANDREWS, A U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Senator **Andrews**. Thank you. I appreciate the opportunity to testify about legislation proposing to grant the right of Federal eminent domain to coal slurry pipelines.

Controversial as the granting of that special privilege might be, its implications, I think, have been overshadowed in congressional debate by the legislation's threat to overturn traditional States' water rights. It is to that threat that I want to address my remarks to the committee today.

As this committee knows, I am a farmer by profession, not a politician. My training includes the most essential knowledge of the hydrologic cycle, a phenomenon that takes place in nature that gives us renewing supplies of that most necessary commodity, water. As my colleague from Arizona pointed out, there are a lot of things that are negotiable, but not water, particularly when you are trying to produce food in the West.

A belt of semiarid lands runs through North Dakota and many of the neighboring States out there. Because of these extremely dry conditions, we've had to take extraordinary measures to properly manage and conserve the natural supply of water available within our boundaries. We have come to understand that allocation, use, evaporation, the recharge of aquifers, and contamination of water sources are intricately interrelated with all economic endeavors in that region.

We have developed a complex system of reclamation projects to make possible the storage and timely release of available water supplies. We've put a lot of effort, Mr. Chairman, into the management of the very very short water supplies, to keep our stream flow adequate to do in agriculture what we need to do.

With that background, I can express to the committee my primary fears about S. 1844. The water debate concerning coal slurry pipelines is a drama with elements affecting each of the allocation and use problems we have experienced in North Dakota.

Slurry pipelines are not a new issue. Congress has struggled for nearly 10 years to discover language that will protect the rights of the States to allocate and properly manage their water resources. I have to compliment Senator Johnston for having come very close to finding a solution, but in my mind and in the minds of some of our water lawyers out in North Dakota, S. 1844 still misses the mark. I'm sorry to tell the sponsors of this bill that I'm finally convinced maybe there is no acceptable solution at the Federal level.

The language of S. 1844 is undoubtedly sufficient for the initial consideration by a State legislature of whether to grant a water right to a coal slurry pipeline project. What it does not do is protect the right of that legislature to preempt that water right in unforeseen circumstances in which the drawdown has proven to be a threat to farm and community needs.

There is no way, Mr. Chairman, that you can judge a drought cycle that's going to come up a decade or so down the line. There is no way you can judge drawdown in future years of aquifers. It's a very inexact science. These conditions are totally speculative. The failure of an aquifer to adequately recharge, prolonged drought, increased population and agricultural development, all of which place too great a burden on available water supplies.

Experience over the last decade has taught us that increased demand for water is making these conditions the rule rather than the exception in all too many areas of the country.

The language of S. 1844 seeks to recognize State sovereignty in a number of ways, relative to both the exercise of Federal eminent domain across private lands and to the protection of States' water rights. It is unsuccessful in this effort because it fails to recognize that Federal preemption, the theory in interstate commerce that Federal law overrides State law, cannot be set aside easily through congressional action. Certainly, the manner in which S. 1844 attempts to skirt Federal preemption will not hold up against judicial challenge.

Congress derives its power to grant Federal eminent domain rights to these pipeline companies pursuant to the Interstate Commerce Clause of the U.S. Constitution. In granting that special privilege, Congress made clear that it does not intend to preempt certain state prerogatives.

But a century of court decisions has demonstrated that most congressional attempts to put limitations on Federal preemption of State law have failed to anticipate the diverse circumstances which arise when construction of a specific project is undertaken. Well-intentioned limitations on Federal preemption have proven insufficient for reliable safeguarding of State and local laws.

Irrespective of the fact that two people from a Western water-short State might be on the Supreme Court at this particular point in time, where these State and local laws act in ways contrary to Federal intent, the States' jurisdiction is inevitably preempted.

One way in which S. 1844 attempts to put limitations on Federal preemption occurs in section 4(c), which says that the exercise of Federal eminent domain shall, and I quote, "conform as nearly as may be practicable with the practice and procedure in a similar action or proceeding in the courts of the State where the property is situated."

The phrase "as nearly as may be practicable" means only one thing to me. If State and local laws don't in any fashion inhibit the construction and operation of coal slurry pipelines then obey them. If they do inhibit, Congress has triggered, by passage of S. 1844, the mechanism and circumstances under which the commerce clause of the Constitution may be invoked to preempt local jurisdiction. "Practicable" is a word which lacks legal definition. It is a subjective test in which the court weighs the complaints of pipeline promoters against the complaints of any local government or individual standing in their way. Invariably the courts have found the interstate commerce clause of the Constitution to be a more powerful force than local government.

S. 1844 attempts unsuccessfully in the same way to provide special provisions for the protection of States' water rights.

And again, over the past century, Federal legislation passed pursuant to the commerce clause has made increasingly deep cuts into water authorities once held by the States. Legal efforts to define the boundary between State sovereignty and Federal preemption have resulted in a mixed bag of judicial decisions, but the aggregate result is clear: The Federal Government's "turf" in water matters has been greatly expanded by these judicial scuffles.

And I might point out one or two, or one case in particular, to the committee.

A landmark Supreme Court case, *First Iowa Hydroelectric Cooperative* v. *Federal Power Commission,* illustrates I think best why the water language in S. 1844 provides insufficient protection to the States.

In that decision the Supreme Court failed to comply with statutory congressional provisions giving recognition to the application of State water rights. In essence, Congress enacted a requirement that projects provide proof of compliance with State, as well as Federal law. Well meaning on the part of Congress, but in this case totally nonprotected.

In actual practice the compliance with specific State laws applicable to the First Iowa project turned out to be in conflict with Federal requirements. The Supreme Court ruled that despite the congressional attempt to safeguard State sovereignty, Federal requirements under the Constitution preempted conflicting State statutes.

The construction of water language in S. 1844 is very similar to that tested in *First Iowa.* While the sponsors of S. 1844 made a good faith effort to protect States water rights, *First Iowa* and similar court rulings have demonstrated to us time and time again that nothing short of a constitutional amendment can secure States rights where a question of burdening interstate commerce is involved. Congress is simply not empowered to work its will outside the context of provisions of the U.S. Constitution.

And there is another point that should be raised with this committee relative to the section 6 water language. That language proposes to open up new headaches for States from which water might be tapped for coal slurry pipelines. I believe these new problems are an accidental result of drafting technique, but they are nonetheless severe.

The language assumes for the Federal Government the power to delineate the extent of State control over water allocations and use in coal slurry operations. It specifically limits some Federal powers, but is unfortunately silent on a broad range of other water issues which might come into question in specific pipeline projects. Put more simply, the legislation says the Federal Government cannot interfere in certain water decisions and that those water decisions are to be made by the States. From this, it can easily be argued that any traditional States rights not specifically described and protected in section 6 can be presumed therefore to be preempted by Federal powers insofar as coal slurry pipeline operations are concerned.

This may well be one of the most devastating infringements on States water rights which this committee has ever seriously entertained. Comparable language was contained in the proposed Energy Mobilization Board authorization, but rejected. For the sake of States sovereignty, it must also be rejected as proposed for coal slurry pipelines.

There are no firm plans at this time for a coal slurry pipeline which originates, crosses, or serves North Dakota, so I have restricted my remarks today to water issues, which are of national consequence. Water rights are not only the most critical aspect of this debate over coal slurry, but it is likely that the water issue cannot be resolved in a Federal form in a way that enhances the ability of the States to properly allocate and manage this vital resource.

Without Federal legislation, pipeline promoters will have to negotiate directly with State and local governments for permits and conditions under which they might construct and operate these coal transportation systems. At this decisionmaking level, at the State level, we can be assured the rights and interests of the individual States will be protected and not overridden by loosely defined Federal policy.

I would hope, Mr. Chairman, that the committee take no further action on S. 1844, at least until some of these very serious legal points that our people in North Dakota brought up to me, can be answered. I think the drafting of the bill was done by some of my best friends in the Senate, and I know it was in good faith and meant to be in the right direction, but looking at some of the Court decisions down the line, I would hate to open up a Pandora's box that once opened would be very difficult to close again.

I appreciate very much, Mr. Chairman, your giving me this time to testify on this bill.

[The prepared statement of Senator Andrews follows:]

Statement of Senator Mark Andrews of North Dakota

before the
Committee on Energy and Natural Resources
United States Senate

on
May 10, 1982

Mr. Chairman, thank you for the opportunity to testify about legislation proposing to grant the right of federal eminent domain to coal slurry pipelines.

Controversial as the granting of that special privilege might be, its implications have been overshadowed in Congressional debate by the legislation's threat to overturn traditional States' water rights. It is toward that threat that I want to address my remarks to the Committee today.

As this Committee knows, I am a farmer by profession--not a politician. My training as an agronomist includes that most essential knowledge of the hydrologic cycle--a phenomenon that takes place continually in nature and which must be understood by those who would tap into this process in damaging ways. Farm production is not possible without a continuous supply of moisture. Unfortunately, not all water sources supply non-polluted, mineral-free flows which are useful to both farm and community users.

Where clean and ample supplies of water exist, the pressures of competition for scarce resources are increasingly evident--pressures to divert those waters to thirsty areas of the Southwest and the Midwest and to supplement the intensive demands of large metropolitan and industrial centers. Almost without exception, these diversions take the water resource away from farmers. There has developed in this exchange a price war over water--energy companies and industry competing against farmers for water, and establishing market prices which farmers cannot afford.

A belt of arid to semi-arid lands runs through North Dakota and its neighboring States. Because of these conditions, we have had to take extraordinary measures to properly manage and conserve the natural supply of water available within our boundaries. Resource managers in these States have come to understand that allocation, use, evaporation, the recharge of aquifers, and contamination of water sources are intricately interrelated with all economic endeavors in that region.

Over the years, the development of a complex system of reclamation projects has made possible the storage and timely release of available water supplies. The proper management of these reclamation projects has resulted in irrigation benefits, hydroelectric power, recreation, extended commercial navigation, and improved environmental conditions. It also puts the upper midwestern states in a position to contribute to the needs and demands for water resources in a thoughtful and orderly fashion.

With that background, I can express to this Committee my primary fears about S. 1844. The water debate concerning coal slurry pipelines is a drama with elements affecting each of the allocation and use problems we have experienced in North Dakota.

This Congress has struggled for nearly 10 years now to discover language which will protect the rights of the states to allocate and properly manage their water resources. While I must compliment Senator Johnston for having come very close to finding a solution, S. 1844 still misses the mark. I'm sorry to tell the sponsors of this bill that I'm finally convinced there is no acceptable solution at the federal level.

The language of S. 1844 is undoubtedly sufficient insofar as the initial consideration by a State legislature whether to grant a water right to a coal slurry pipeline project. What it does not do is protect the right of that legislature to preempt that water right in unforeseen circumstances in which the drawdown has proven to be a threat to farm and community needs.

These conditions are totally speculative—the failure of an aquifer to adequately recharge, prolonged drought, increased population and agricultural development, all of which place too great a burden on available water supplies. Experience over the last decade has taught us that increased demand for water is making these conditions the rule, rather than the exception, in all too many areas of the country.

The language of S. 1844 seeks to recognize State sovereignty in a number of ways, relative to both the exercise of federal eminent domain across private lands and to the protection of states' water rights. It is unsuccessful in this effort because it fails to recognize that federal preemption—the theory in interstate commerce that federal law overrides state law—cannot be set aside easily through Congressional action. Certainly, the manner in which S. 1844 attempts to skirt federal preemption will not hold up against judicial challenge.

Congress derives its power to grant federal eminent domain rights to these pipeline companies pursuant to the Interstate Commerce Clause of the U.S. Constitution. In granting that special privilege, Congress may, through statutory language and legislative history, make clear that it does not intend to preempt certain State prerogatives.

A century of court decisions has demonstrated, however, that most Congressional attempts to put limitations on federal preemption of State law have failed to anticipate the diverse circumstances which arise when construction of a specific project is undertaken. Well-intentioned limitations on federal preemption have proven insufficient for the reliable safeguarding of State and local laws. Where these State and local laws act in ways contrary to federal intent, the States' jurisdiction is inevitably preempted.

One way in which S. 1844 attempts to put limitations on federal preemption occurs in Section 4 (c), which says that the exercise of federal eminent domain shall (quote) "conform as nearly as may be practicable with the practice and procedure in a similar action or proceeding in the courts of the State where the property is situated" (end of quote).

The phrase "...as nearly as may be practicable..." means only one thing to me: if State and local laws don't in any fashion inhibit the construction and operation of coal slurry pipelines, then obey them. If they are inhibitors, Congress has triggered, by passage of S. 1844, the mechanism and circumstances under which the Commerce Clause of the Constitution may be invoked to preempt local jurisdiction. "Practicable" is a word which lacks legal definition. It is a subjective test in which the court weighs the complaints of pipeline promoters against the complaints of any local government or individual standing in their way. Invariably, the courts have found the Interstate Commerce Clause of the Constitution to be a more powerful force than local government.

S. 1844 attempts unsuccessfully in the same way to provide special provisions for the protection of States' water rights.

Over the past century, federal legislation passed pursuant to the Commerce Clause has made increasingly deep cuts into water authorities once held by the States. Legal efforts to define the boundry between state sovereignty and federal preemption have resulted in a mixed bag of judicial decisions, but the aggregate result is clear: the federal government's "turf" in water matters has been greatly expanded by these judicial scuffles.

A landmark Supreme Court case, First Iowa Hydro-Electric Cooperative v. Federal Power Commission, best illustrates why the water language in S. 1844 provides insufficient protection to the States.

In that decision, the Supreme Court failed to comply with statutory Congressional provisions giving recognition to the application of state water law. In essence, Congress had enacted a requirement that projects provide proof of compliance with State, as well as federal law. In actual practice, compliance with certain specific State laws applicable to the First Iowa project turned out to be in conflict with federal requirements. The Supreme Court ruled that despite the Congressional attempt to safeguard state sovereignty, federal requirements preempted conflicting State statutes.

The construction of water language in S. 1844 is very similar to that tested in First Iowa. While the sponsors of S. 1844 have made a good faith attempt to protect states' water rights, First Iowa and similar court rulings have demonstrated to us time and time again that nothing short of a Constitutional amendment can secure States' rights where a question of burdening interstate commerce is involved. Congress is simply not empowered to work its will outside the context of provisions of the U.S. Constitution.

There is another point which needs to be raised with this Committee relative to the Section 6 water language. That language proposes to open up new headaches for States from which water might be tapped for coal slurry pipelines. I believe that these new problems are an accidental result of drafting technique, but they are nonetheless severe.

The language assumes for the federal government the power to delineate the extent of state control over water allocations and use in coal slurry operations. It specifically limits some federal powers, but is unfortunately silent on a broad range of other water issues which might come into question in specific pipeline projects. Put more simply, the legislation says the federal government cannot interfere in certain water decisions and that those water decisions are to be made by the States. From this, it can be easily argued that any traditional States' rights not specifically described and protected in Section 6 can be presumed, therefore, to be preempted by federal powers insofar as coal slurry pipeline operations are concerned.

This may well be one of the most devastating infringements on States' water rights which this Committee has ever seriously entertained. Comparable language was contained in the proposed Energy Mobilization Board authorization, but rejected. For the sake of States' sovereignty, it must also be rejected as proposed for coal slurry pipelines.

There are no firm plans at this time for a coal slurry pipeline which originates, crosses, or serves North Dakota, so I have restricted my remarks today to water issues, which are of national consequence. Water rights are not only the most critical aspect of this debate over coal slurry, but it is likely that the water issue cannot be resolved in a federal forum in a way that enhances the ability of the States to properly allocate and manage this vital resource.

Without federal legislation, pipeline promoters will have to negotiate directly with State and local governments for permits and conditions under which they might construct and operate these coal transportation systems. At this decision-making level, we can be assured that the rights and interests of the individual States will be protected and not overridden by loosely-defined federal policy.

I recommend, therefore, that the Committee take no further action on S. 1844.

The CHAIRMAN. Thank you very much, Senator.

Senator JOHNSTON. Mr. Andrews, you state on page 3 of your statement that what S. 1844 does not do is protect the right of the State legislature to preempt that water right in unforeseen circumstances in which the drawdown has proven to be a threat to farm and community needs. What you're getting at is after the water right is granted and unforeseen circumstances result which are not covered?

Senator ANDREWS. That's right. It's the feeling of our people that once we granted that type of water right, if something unforeseen came up, a drought or a whole host of other things, it would be impossible to get that water back.

Senator JOHNSTON. That is a problem, and in an earlier draft of the bill I think perhaps we didn't have that taken care of. But if you'll look there on page 7 of the bill, section 6(b), you'll note that we specifically provide for that problem now as follows: "Pursuant to the commerce clause, the Congress declares the establishment, exercise of terms and conditions including the terms or conditions terminating use, shall be determined pursuant to State law."

So we specifically provide that the conditions of terminating that use according to State criteria, such as the manner in which a State would like to define that drought, are clearly left to the States. So I hope that item will be——

Senator ANDREWS. It certainly shows my colleague from Louisiana is as sincere as any Member of the Senate and is trying to find a way to resolve these problems. But the question is, even with the final language that my colleague has put in, there is still a serious question. Once this is granted in an interstate or national form, trying to get it back, even with this kind of language in the bill, could be a very legally difficult thing to do.

Senator JOHNSTON. I would submit to my colleague that there's no difficulty in it at all. You might have a problem getting the State to act, or if you had a coal slurry pipeline bill without this kind of legislation you would still face the same problem. Perhaps it would be even easier for the State to act with this legislation.

I don't think there is any loophole or any problem with that language, and I commend that to your lawyers.

There was recently a memorandum done for Congressman Udall on the question of this water language which deals in some depth with all these questions and concludes that this language gives full protection.

Now the next item, on page 6 you state the bill "is unfortunately silent on a broad range of other water issues which might come into question in specific pipeline projects." Can you tell us what those issues might be and what those specific problems might be?

Senator **Andrews**. The specific problems that we see, alternate sources of water, are they allowed to take it from aquifers? Can they take it from surface water? If they begin to take it from surface water and the surface source is not adequate, can they then move to subsurface? Do they have a water right, a higher water right than a later water right coming along for irrigation?

These are all questions that the bill is silent on. And they bother the western water States.

Senator **Johnston**. Those are questions which address themselves presently to the State, and under this legislation would continue to address themselves to the State. It's our idea to give the ability to make those decisions to the State, where it ought to be, and I think we've done it by very clear and unambiguous language.

Senator **Andrews**. Without this legislation a decision does rest with the States, totally. There is no overriding umbrella taking away from the States, or perhaps questioning the ability of the States to be the final arbiter of the situation.

Senator **Johnston**. This legislation doesn't do that either.

Senator **Andrews**. Today the States can grant the right for a slurry pipeline.

Senator **Johnston**. Well actually, when the water for such a line gets into interstate commerce, under present law you have an argument that it comes under Federal control. We declare that it does not. Not only do we relieve the initial appropriation of the water to State law, but we declare that even though water might be used in interstate commerce, the Federal Government surrenders whatever right it would otherwise have to control that water.

I hope you'll take another look at it in light of what we think is very clear language.

Senator **Andrews**. As important as this is to a water deficit State like North Dakota, my staff has taken a continual look at it and our people in the Attorney General's office out in North Dakota, and the Water Commission, are taking looks at it and updating me as the bill moves through the legislative process.

The **Chairman**. Senator Johnston is not unaware of our concerns. I think he sometimes responds as the classic definition of who is paranoid? Just because I'm paranoid is no reason to believe that they're not out to get me.

Senator **Andrews**. If he just floated through those clouds that sit over Louisiana and send them to North Dakota, our concerns would be a lot less.

The **Chairman**. There was a period of time, I think, in the past there was no State, nor one of cur shoreline States that had any idea the Federal Government was going to preempt the oil and gas rights offshore. Yet it happened. And yet there's a long history of statements of people saying the Federal Government could not and would never attempt to do that. So we have some reason for fear.

Senator Murkowski?

Senator **Murkowski**. Thank you.

Senator Andrews, I wonder if your discussions with Senator Johnston on your concern over the language, do you have any constructive recommendations that might address particular concerns that you have? The attempt has been made as you indicated, to try and address the matter of States rights with regard to the utilization of this water. And I'm wondering if you have anything in a constructive manner that might assist to provide the assurance that you feel is necessary.

Senator **Andrews**. Knowing the author of this legislation and knowing the good-faith effort they put into it to protect States rights and still looking at it in the light of legal decisions that have been made through the years, particularly the one in Iowa that I cited, I'm beginning to wonder if we can build legislation of this type that wouldn't result in later court cases, seriously depreciating the ability of the States to control their water supply. That's why I recommended that maybe what we have to do is turn back to the States and let the State determine whether or not these pipelines should be built.

Senator **Murkowski**. Do you think it would be practical under the likelihood of the number of States getting together and providing the necessary agreement to enable the financing of the pipeline through several States?

Senator **Andrews**. It would not be easy, certainly, the Federal legislation facilitates it, but on balance, what's more important? Preserving the rights of the very arid States to their limited water supply or putting together some type of Federal legislation that would expedite the construction of these pipelines? We've been frustrated in our part of the country on trying to get an oil pipeline to move the oil that we need desparately in the Dakotas and Minnesota where we can't get at it from Alaska. The Northern Tier pipeline. And one State has stopped that. One State that we think arbitrarily, but that's the way it goes.

We hope that we can talk and try to get that turned around, but it protects that State's right to do what it thinks is necessary. I think the movement of that particular energy, that particular oil into the refineries, many of them cooperative refineries, many of them independent refineries, that are out there in Idaho, Montana, they have no other source of oil than the oil coming from Canada and that's been cut off. I think that's of a much higher energy need, even than moving slurry coal through a pipeline.

But in that case certainly the individual States have had their say.

Senator **Murkowski**. As you pointed out, the Northern Tier is obviously a situation where States' rights have prevailed to the detriment of your State which needs availability. Under this proposed legislation, although we're not talking about the same thing, I still don't feel you've really keyed into our concern on suggested changes in the language that would satisfy the fears of your State and other States.

Senator **Andrews**. Given the legal decisions that have been made under the commerce clause in the Constitution, I doubt that we can write legislation that's bullet proof in court decisions.

Senator **Murkowski**. I assume your ultimate concern is in the event the State wanted to have the water back and could not have, that it could not have that option. Is that the bottom line of your concern?

Senator **Andrews**. That's one of our major concerns, yes.

Senator **Murkowski**. Thank you.

The **Chairman**. Thank you. I think you've stated your position very clearly and presented before the committee the issues we must consider. I appreciate it very much.

We have some guests that wish to testify on this and I think it's Hon. Ray Kogovsek, a U.S. Representative from Colorado.

STATEMENT OF HON. RAY KOGOVSEK, A U.S. REPRESENTATIVE FROM THE STATE OF COLORADO

Mr. **Kogovsek**. Thank you. It is a pleasure and an honor to appear before your committee. I am deeply grateful for the opportunity to present my views on this very important issue and I look forward to a meaningful discussion on the matter.

May I say that my testimony does not endorse or oppose coal slurry pipelines. But I have to say that my vote in the past has been opposed to coal slurry pipelines and will continue to be opposed to coal slurry pipelines because I don't think there's enough water in the West to do everything that the Nation wants it to do.

My testimony does, however, concentrate on the protection of States rights and the rights of such States to exercise their authority for water appropriation, development, and use. I need not remind this committee, certainly, of the importance of water for the various western States. I am sure you are all aware that it is crucial to our survival. Furthermore, I am sure you are aware that it is a very scarce resource in the West, one that has been fought over for many, many years and one which will continue to be fought over for years to come.

We in the western States have developed some of the most comprehensive water laws this Nation has ever seen. These laws were developed out of necessity, in order that we may appropriate this scarce resource to beneficial uses in the most efficient and effective manner possible.

Mr. Chairman, we cannot afford to sit back and watch western water be put to use, unchecked and without active State participation. In the past, Congress has always seen fit to assure the various States the right to self-determination in water appropriation, use, and development. To the greatest extent possible, we have recognized the right of sovereignty when it comes to water. Most important, Congress has always worked within the framework of State water laws, rather than attempting to usurp the rights and powers of various States.

I commend my colleagues for their efforts to insure that States' water rights are protected in this legislation. In the House version of the bill, language was included which stated that "Nothing shall be construed to permit any person to acquire any right to take, use or develop water for the exercise of the power of eminent domain." This language is helpful but it still does not adequately address the issue, particularly in the future.

Under the legislation, a coal pipeline company may be granted a certificate of public convenience, for purposes of acquiring a right-of-way. Great care has been taken to insure that various types of restrictions are placed on the granting of a certificate, as well as limitations on such certificates. What happens, if this legislation is passed, a coal pipeline company follows through with the procedural requirements of this bill, and it is granted a certificate of public convenience, only to find that a State water decree has not been issued? Will the Federal Government usurp the States' water rights? I would hope not. Furthermore, what happens if a conditional decree is vacated prior to the issuance of a certificate? Is the Commission obligated to continue with the application, knowing that a water right has not been decreed?

If these scenarios were to occur, and I think they may under the present draft, then all we have done is accelerate a very expensive and time-consuming process to a potential conflict that should have been addressed before a certificate was issued. In essence, unless the Federal Government intends to eventually usurp the States' authority, all we have done is waste the time and the money of the pipeline companies, the States, and the Federal Government.

Therefore, I would propose that prior to the issuance of a certificate, the coal pipeline company should be required to fully comply with all State water laws and State provisions of interstate water compacts. This should include all substantive and procedural requirements. I would also recommend that no certificate shall be issued unless and until such requirements have been fulfilled.

Again, I would like to thank you, Mr. Chairman, for the opportunity to testify before the committee. I'd be happy to answer any questions.

The CHAIRMAN. Thank you very much. I appreciate your statement.

Senator JOHNSTON. I would simply remark, Mr. Chairman, that I think the Congressman's concerns have been taken care of in the legislation. It specifically says the water rights are determined by State law.

Mr. KOGOVSEK. I would bring to your attention, my suggestion as far as the issuance of the certificate of public necessity, I would hope that water rights could be complied with and insure that they are complied with before or prior to the issuance of that certificate.

Senator MURKOWSKI. I wonder if you share in the comments made a few moments ago with regard to whether or not the States could take back the water or whether that need is a real potential threat in your testimony in opposition to the bill. And if you have any suggested wording that might give you greater comfort. Do you think we can provide adequate language to address the very concern that was expressed by Senator Andrews?

Mr. KOGOVSEK. I would associate myself with the comments made by the Senator of North Dakota. I have a strong feeling, as diligent as the Senate has been and as diligent as the House has been, in trying to assure that the adequate language is there to protect western water, I don't think it can ever be done. I've tried to draw up language. I know Representative Udall in the House has, and I think as I stated earlier, we in the West have a limited resource. I'm afraid that once a decision was made sometime down the line, that there was in fact some great national overriding interest as far as the movement of energy, the movement of coal and so on, I don't think we can write the kind of language that would give the State of Colorado, for instance, the protection that we need to be in control of our own destiny as far as water is concerned.

Senator **Murkowski**. Mr. Chairman, I haven't been around here long enough to do much more than make some observations on the language, but sitting on the Environment and Public Works Committee and the merits of the Clean Air Act, we have certainly written some language around here. Whether it's been adequate or not, I don't know. With that observation, I will defer. Thank you.

The **Chairman**. Thank you very much. I appreciate your testimony this morning.

We have another member from the other body, the Honorable Jim Weaver, the Representative from Oregon. Welcome to this committee.

STATEMENT OF HON. JIM WEAVER, A U.S. REPRESENTATIVE FROM THE STATE OF OREGON

Mr. **Weaver**. Thank you, Mr. Chairman and members of the committee. I appreciate the opportunity to testify.

I believe, having sat on the House Interior Committee now for 8 years, this is the first issue to come before the Interior Committee when I first came to Congress, and it's still with us. My position remains unchanged. I oppose granting the powers that this bill grants to the coal slurry pipeline community. Underlying the grant of powers is the assumption that a coal slurry pipeline is a common carrier.

I submit that it is not a common carrier because the enormous financing needed to build such a line requires that they have contracts signed prior to construction. These contracts usurp almost the entire product of the pipeline and therefore there is no place for any other shipper to be served by the pipeline. At the same time the pipeline is going to wreak severe damage on the railroads which are common carriers, and threaten the railroads to the point where we might lose some of their true common carrier attributes.

With that, Mr. Chairman, I conclude my testimony and would be open for any questions you might have.

The **Chairman**. Thank you.

Senator **Johnston**. I would simply say, for jurisdictional reasons, we didn't deal with that question of common carrier. We will let the Commerce Committee handle that on the floor if they wish, but I might add that railroads can make the very kind of long-term contract that you just described as being bad for our coal slurry pipelines.

Mr. **Weaver**. Of course they can, but as we all know, the railroads are anxious to carry their supply, they have the facilities to do it. They can add more or less box cars to their trains to do it. While the coal slurry pipeline, once it's in, it has a certain capacity and that's it.

The **Chairman**. I think it would be correct, would it not, Congressman, if we took the rather unusual modern example of a railroad that built a spur line and that's not unusual in Wyoming today. That's intended to serve only the coal fields, and they had long-term contracts that would proceed to be 100 percent carrying capacity of that rail line and still be obligated under existing law to carry other cargo that were tendered to it?

Mr. **Weaver.** Of course they would, and they would do it, and also the spur line is a short line, generally within a State. We're talking about an enormous expenditure of money for a fixed line with no flexibility.

Senator **Murkowski.** I have no questions.

The **Chairman.** Thank you very much for your testimony.

Is Congressman Williams present?

[No response.]

The **Chairman.** Congressman Craig has indicated he will testify at the hearing now scheduled on the 20th.

Senators Burdick and Wallop, Governors Herschler of Wyoming and Clements of Texas, Congressmen Udall, Madigan, Marriott, and Stangeland have prepared statements they wish that I introduce into the record at this point, so they will appear in the record at this point.

[The statements follow:]

TESTIMONY OF SENATOR QUENTIN N. BURDICK
BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
MAY 10, 1982

I appreciate this opportunity to express my views on S. 1844, the Coal Distribution and Utilization Act of 1981, which would provide eminent domain authority for the development of coal slurry pipelines. As a result of extensive congressional consideration of slurry pipeline legislation over the past ten years, many of my colleagues and I have become acutely aware of the social, economic, and environmental consequences associated with slurry development.

I believe that the most important of these concerns is whether the scarce water resources of the west should be used to slurry coal, particularly if alternative means of transportation is available. For many of us, water is the essential ingredient in any kind of economic development and growth.

In the rush to facilitate the development of coal mining and production, it is possible to forget the massive amounts of water required for area consumption, mine-mouth generation, gasification, and reclamation operations which are already drawing upon this scarce and valuable resource. Slurry pipelines are equally, if not more, water consumptive. A 38" pipeline can transport 25 million tons of coal a year, but it will also require 25 million tons of water to do the job.

We cannot forget that American agriculture will be called upon increasingly in the future to feed a hungry world. And to do this, we will require much more water than is presently available to the farmers and ranchers of this country. The western states have a great capacity for crop production, but we need water distribution systems in order to realize this potential.

In 1978, I testified before this Committee on this same issue and stated my concern over scarce western water. At that time, only a few states' surface waters were being considered for slurry pipelines. Today many more states have been added to the list, including North Dakota. The granting of federal eminent domain jeopardizes water for any state, and because of the location of coal deposits in this country, the primary states affected are, for the most part, in water-scarce areas.

The report by the Office of Technology on Coal Slurry Pipelines states very clearly that the amount of water available in Montana and Wyoming will be less than all the potential demands for that water by the year 2000. More recent reports by the Department of Energy and the Interior regarding water availability throughout a variety of western states indicate the physical availability of surface and groundwater resources for certain kinds of energy development. Yet no one has adequately addressed the issue of competing water needs among these various energy technologies and existing domestic and agricultural uses.

I do not believe that the use of water in the arid west for unessential slurry operations is wise when it is not entirely clear that North Dakota and her neighbors have sufficient water for human needs, for agriculture, for stream flow stabilization, and for recreation.

I believe that for you to understand the depth of my concern it is necessary that you appreciate the geological and climatic conditions which exist in North Dakota.

The climate varies from subhumid to semiarid from east to west. In general, precipitation averages around 19" in the eastern part and 15" in the western part.

Our water resources are so limited that in most parts of the state it has been necessary at some time to haul potable water and sell it by the tank load. It can accurately be said that with the exception of the abundance of water in the mainstream Missouri Reservoirs, Sakakawea, and Oahe, the only time North Dakota has an abundance of water is during the spring floods.

Our communities are heavily dependent on surface water to meet their needs. In fact, surface waters supply about 80 percent of North Dakota's total water needs. Yet, long periods of no flow are experienced on most of the smaller tributary streams. The result is that none of the five major rivers can be counted on to provide sufficient water for municipal uses.

Unfortunately, there is no guarantee that we will always receive the necessary rainfall in the nick of time. There are many examples of drought in the recent past which highlight the need for sound water resource planning. In addition, we are faced with the prospect of diverting large quantities of water for coal gasification. To the extent that Congress should act to facilitate or encourage slurry pipeline development, states such as North Dakota will be faced with yet another competitor for its scarce water resources. Most important is the fact that the allocation of water for coal slurry will very likely be made without the concurrence of North Dakota officials. In short, our water could well be taken for coal slurry operations in quantities that we cannot afford if our local needs are to be served.

The concerns that I have just expressed are not unknown to others. The Legislatures in Florida, Oklahoma, Texas, and Louisiana have specifically provided that their grant of state eminent domain power for slurry lines must contain the provision that no right to condemn, or to even use state water, shall accrue to the pipeline operators. Interestingly, these are the states that would benefit from the proposed coal slurry lines, in that they would be the recipients of both the coal and the water.

The principal advantage of using state eminent domain power as opposed to federal is that the states can control the use of water in cases where the power of eminent domain is granted by the state. But, once the power of federal eminent domain is given to facilitate the building of slurry pipelines, I believe that the states will have lost the effective control over the allocation of their water.

The power of Congress to make water available for slurry is well established. In the City of Fresno v. California, 372 U.S. 627 (1963), the Court affirmed that the United States may exercise the power of eminent domain to acquire the water rights of others. I do not question the proposition that once the federal government has placed its stamp of approval on coal slurry pipelines and the pipelines are in place, it will be a very easy step to acquire federal eminent domain power to acquire the water necessary to operate the lines if such a step is necessary.

It should be noted that in the Great Plains states, the law of prior appropriation governs the distribution of surface water. Simply speaking, this means that to obtain a right to water, the user must establish a prior beneficial use. It is clear then that if the water supply sought for the pipeline is unappropriated water, then the necessary water could be obtained for slurry operations even without the use of eminent domain.

I applaud the attempts which have been made to insure that the states will retain some control over the distribution and use of the water. I am sorry to say that I have little faith in the proposition that Congress can construct this legislation so that the states will retain any real power to divert water from pipeline use to a pressing local or regional purpose.

Prior decisions have made it amply clear that the provisions which recognize state water law can easily be ignored by the Courts. In First Iowa Hydroelectric Cooperative v. Federal Power Commission, 328 U.S. 152 (1946), and again in State of Arizona v. State of California, 373 U.S. 546 (1963), the Supreme Court affirmed that the provisions of federal law granting water rights superseded the conflicting requirements of state law. The Court so held despite clear statutory language which would have required the federal government to comply with applicable state law.

It takes little imagination to foresee the time when the need for water for coal slurry comes in conflict with local needs and priorities. As I have already pointed out, the OTA Report predicts that additional water sources will be needed by the year 2000. In light of the decisions in First Iowa and in Arizona v. California, the proponents of the pipelines could likely be successful in contending that once a federal certificate of convenience and necessity has been issued, state rules and determinations cannot interfere with the acquisition of water for the pipeline. As the OTA study suggests:

> A federal certificate of convenience and necessity indicates a federal determination that an operative coal slurry pipeline is in the public interest, and

> yet a state ordered cessation of the use of what is perhaps the only practically available source of water renders a pipeline inoperative as effectively as would an enforceable state determination that the operation of a pipeline was not in the public interest. Since the latter state determination would not be enforceable, it would seem to follow that the former would not be enforceable either, again except to the extent that the state orders cessation to protect prior vested rights.

I would like to suggest a hypothetical situation to better illustrate the legal dilemma:

Let us assume the proposed pipeline from Wyoming to Arkansas is constructed. It is my understanding that Wyoming has granted water rights to the operators. This water will be taken from the Madison formation, of which we know very little, and there seems to be serious disagreement as to the rate of recharge. Additional questions deal with whether the water is potable or brakish.

Let us further assume that the as yet unfinished geological survey indicates that rate of recharge in the Madison formation is insufficient to continue to permit slurry operations. Can any of us believe that the pipeline will cease operation? I do not believe that we can. What will happen is either Wyoming will be forced to give up water that they could ill afford to lose or their neighboring states, including North Dakota, will be compelled to provide water that has already been allocated for pressing local or regional needs.

If we make the wrong decision now, we will ultimately face the question of deciding whether we chance serious threats of blackouts in the south or whether we chance serious shortages of water which will be needed for human and agricultural needs in the Great Plains.

One other consideration deserves our attention. The commerce power is admittedly the single most important source of federal power over water resources. The OTA study concludes that the power over navigable waters (and tributaries) also comprehends the power to make waters of a navigable stream available for a coal slurry pipeline. I do not doubt that once the water enters interstate commerce, the state has lost control.

If the question before us was one which dealt with Congress providing the one means by which the energy crisis could be alleviated, I would be much more reluctant to oppose slurry pipelines. But the OTA report on coal slurry concluded that the coal slurry pipelines would not help ease the energy crisis; that the pipelines can be built using state eminent domain which would then allow states some measure of protection; and finally, that the building of the pipelines will not change the way coal is used because OTA determined that the railroads can handle the transportation job as well as slurry pipelines.

In conclusion, I believe that the granting of the federal power of eminent domain, as proposed in S. 1844, would subject North Dakota and the other Plains states to unnecessary and unfair hardship. In point of fact, the water issue is so critical to these states, I believe it would be wise to have this legislation be considered in the Senate Environment and Public Works Committee, which has traditionally examined water use and policy issues.

Mr. Chairman, thank you for this opportunity to present my views.

STATEMENT OF
SENATOR MALCOLM WALLOP
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
HEARING ON S. 1844
THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981
May 10, 1982

SENATOR WALLOP. AGAIN WE TURN OUR ATTENTION TO LEGISLATION INTENDING TO GIVE COAL SLURRY PIPELINES THE RIGHT OF FEDERAL EMINENT DOMAIN THROUGH PRIVATE LANDS FOR PIPELINE RIGHTS-OF-WAY. LEGISLATIVE PROPOSALS ON THIS SUBJECT HAVE BEEN INTRODUCED IN EACH OF THE LAST FOUR CONGRESSES DATING BACK TO 1974. THESE PROPOSALS EITHER NEVER MADE IT OUT OF THEIR RESPECTIVE COMMITTEES OR WERE SOUNDLY VOTED DOWN ON THE FLOOR; PRIMARILY, I VENTURE, BECAUSE NONE OF THEM PROPOSED TO PRESERVE, INVIOLATE, THE RIGHT OF A STATE TO MANAGE AND CONTROL ITS WATER WITHOUT A HINT OF FEDERAL INFRINGEMENT OR INVOLVEMENT. NOT UNTIL THERE IS A PROVISION WHICH CLEARLY PROVIDES THAT A STATE HAS THE UNFETTERED RIGHT TO LITERALLY KILL A COAL SLURRY PIPELINE BY WITHHOLDING OR TERMINATING WATER RIGHTS GRANTED UNDER STATE LAW, WILL THERE BE A COAL SLURRY EMINENT DOMAIN LAW.

IN FAIRNESS, LET ME STATE, AS I HAVE BEFORE, THAT ENERGY DEVELOPMENT OF ANY KIND IS A BURDEN ON WESTERN WATER. THE KEY ISSUE HERE IS THE LARGE CONSUMPTIVE USE OF WATER WHETHER IT BE FOR SLURRY, COAL GASIFICATION OR THERMAL ELECTRIC GENERATION. IN FACT IT IS WELL UNDERSTOOD THAT COAL SLURRY REQUIRES CONSIDERABLY LESS WATER PER TON OF COAL THAN THESE ON-SITE PROCESSES. HOWEVER, ALL THE OTHER USES ARE PROTECTED NOW BY STATE LAW, AND UNTROUBLED BY THE CONSTITUTION'S COMMERCE CLAUSE. NONETHELESS, ACCELERATED ENERGY PRODUCTION HAS RAISED LEGITIMATE CONCERN THROUGHOUT THE WEST, THAT ANY NEW USE ON AN ALREADY TIGHT WATER SUPPLY WILL BE TO THE DETRIMENT OF PRESENT WATER USERS, WHETHER AGRICULTURAL, INDUSTRIAL, OR MUNICIPAL.

THE PRESENT LEGISLATIVE PROPOSALS, S. 1844, and H.R. 4030, ARE THE FIRST TO SPEAK TO THE STATE WATER ISSUE, AND IT HAS NOT GONE UNOBSERVED BY ME THAT THE "PRESERVATION OF STATE WATER LAW" PROVISION IN S. 1844, AS WELL AS H.R. 4030, IS SUBSTANTIVELY SIMILAR TO PROTECTIVE WATER LANGUAGE I PROPOSED OCTOBER 3, 1979, AS AN AMENDMENT TO THE "PRIORITY ENERGY PROJECT ACT OF 1979," BETTER KNOWN AS THE ENERGY MOBILIZATION ACT. I AM QUITE PLEASED TO SEE THAT WE ARE NOW, AFTER EIGHT YEARS, SERIOUSLY TALKING ABOUT ABSOLUTE PROTECTION OF STATE WATER RIGHTS. I ALSO BELIEVE THAT WE ALL AGREE ON THE GOAL SOUGHT BY THIS WATER PROVISION. HOWEVER, IT IS IMPERATIVE THAT SUCH WATER LANGUAGE BE CRAFTED TO LEAVE NOTHING TO THE IMAGINATION OF ANY COURT IN THIS LAND, SO THAT NOTHING, AND I CLEARLY MEAN NOTHING, IN THIS LEGISLATION SHALL BE CONSTRUED AS AN INFRINGEMENT UPON, EITHER EXPRESSLY OR BY INFERENCE, THE RIGHT OF A STATE TO CONTROL AND DIRECT THE USE OF ITS WATER. I SEEK A WATER PROVISION THAT:

1. INSURES THAT NOTHING IN THE LAW CAN BE CONSTRUED OR INFERRED AS GRANTING TO THE UNITED STATES OR ITS AGENTS A NEW RIGHT TO USE WATER;

2. INSURES THAT THE APPROPRIATION OF WATER FOR ANY INTERSTATE COAL SLURRY PIPELINE BE MADE PURSUANT TO STATE LAW OF WATER ORIGIN(S);

3. INSURES THAT IF A STATE EXERCISES CONDITIONS ON WATER PERMITS, UP TO AND INCLUDING TERMINATION, THAT THAT EXERCISE WILL NOT BE PROHIBITED AS AN UNREASONABLE BURDEN ON INTERSTATE COMMERCE OR BE CONSIDERED A TAKING WITHOUT COMPENSATION; AND

4. INSURES THAT FEDERAL INTERVENTION INTO STATE WATER LAW IS PRECLUDED EVEN BY INFERENCE AND THAT NOTHING IN THE LAW SHALL ALTER IN ANY WAT ANY PROVISION OF STATE WATER LAW OR AN INTERSTATE COMPACT.

5. NO FEDERAL RESERVE WATER CAN BE USED IN ANY SLURRY PIPELINE THAT USES FEDERAL EMINENT DOMAIN.

THIS, OF COURSE, RAISES SEVERAL LEGAL QUESTIONS, THE PRIMARY BEING THE CONSTITUTIONALITY OF SUCH A PROVISION. TO THIS EFFECT, CHAIRMAN MCCLURE HAS AGREED TO HOLD ANOTHER HEARING ON MAY 20, 1982, DEDICATED PRIMARILY TO THE WATER ASPECTS OF S. 1844, WHICH I HAVE OFFERED TO CHAIR. IT IS MY INTENTION TO THOROUGHLY INVESTIGATE THE ALTERNATIVES AND LEGALITIES WITH NUMEROUS WITNESSES EXPERT ON THE SUBJECT.

THANK YOU, MR. CHAIRMAN.

WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

May 6, 1982

The Honorable James A. McClure
Chairman
U. S. Senate Committee on
Energy and Natural Resources
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator McClure:

I am writing to express my concern with and opposition to Senate Bill 1844, the proposed legislation which would permit the use of federal eminent domain powers for certain coal slurry pipelines. The questions and problems which have been raised during earlier discussions of coal slurry legislation are still a concern today. These issues must be resolved prior to enactment of Senate Bill 1844.

The issues which must be resolved are:

1. Protection of state water rights
2. Rail transportation
3. Federal eminent domain powers

Water is one of the most precious and sought after resources in Wyoming and throughout most of the western states. Due to the scarcity of this resource, states have developed a set of laws to administer water use and to protect water users. I am very concerned that Senate 1844 has the potential of upsetting the water administration system we now have in place. While I acknowledge and agree with the purposes and intent of Section 6 of the bill, I am not convinced that the courts will respect and enforce the intent of Congress. There are instances where the courts have ignored the intent of Congress on water issues and the states have suffered accordingly. I would suggest that members of the Committee quickly review Committee Print 95-96 for H.R. 1609, the Coal Pipeline Act of 1978, for specific examples.

Another major concern is the volume of water which will be required to satisfy the needs of the coal slurry pipelines which have been proposed for Wyoming. The latest number I have seen is four slurry pipelines using in excess of 80,000 acre feet of water per year. Eighty thousand acre feet of water would meet the municipal water needs of a city of 400,000 people for one year. Further, this would represent a tremendous commitment of a scarce resource from an area which receives about twelve inches of precipitation per year, and if our control over that resource is reduced or jeopardized, it could very well limit or reduce our ability to provide coal and other energy fuels needed by the people of the United States.

I would like to suggest that language be added to expressly provide that in the event the Secretary has granted a right-of-way, but the state has not issued a water right for the pipeline, or the state has applied certain conditions to the water right, that the actions of the state shall not be construed as an undue burden upon interstate commerce. The bill should also clearly state that the granting of a state water right for coal slurry pipeline shall not be construed as committing that water to interstate commerce.

One coal slurry pipeline may not create severe problems for Wyoming, but we are not talking about one project. As I mentioned earlier, at least four such proposals are being considered. Coal slurry pipelines could lock in our water resources to a long term commitment when that water will be necessary for municipal, domestic, and agricultural uses. Coal slurry pipelines will also impact cities and agriculture in other ways.

Railroads need the coal revenues to maintain their operations and to satisfy their stockholders. I am certain that the railroads can explain their position quite well. However, if the railroads do not maintain their facilities and show a profit, they will not be able to internally subsidize less profitable but essential services to our agricultural sector and other segments of economy. I am not advocating a railroad monoply for coal transportation. What I am suggesting is that Congress look at the side affects of this proposed action on agriculture and the economies of the less densely populated areas of the United States which depend on the railroads. This nation needs a strong rail transportation system, and if one link in the system is weakened, the entire transportation system suffers. The problems that made the the Conrail legislation necessary, and the problems facing many eastern railroads and communities by loss of traffic, profits, and access to other parts of the economy will be further aggravated by this legislation.

Coal traffic presents the railroads with the unique opportunity to rebuild themselves without federal assistance and will, in the process, create new jobs. It also allows the railroads the opportunity to provide service to less profitable, but essential, segments of their systems. Coal slurry pipelines will deny the railroads this opportunity and this will result in higher transportation costs for all other goods.

The issue of eminent domain powers by private-for-profit corporations continues to be opposed throughout must of Wyoming. Many landowners in Wyoming are facing the likelihood of having their land and farming activities crossed and disrupted by pipelines, power lines, railroads, and other related transmission facilities.

With the possibility of federal eminent domain power, the incentive for large corporations to bargain in good faith is reduced, because the corporations will play one neighbor against another or resort to expensive legal maneuverings which landholders cannot afford. I am pleased to see that Congress has seen fit to require pipeline companies to use locally accessible courts for proceedings. However, coal pipeline companies should be required to comply with state procedures and laws when they use eminent domain to secure access across private land.

As I have stated on many occasions, Wyoming will carry its share in meeting this nation's energy needs. However, we do not desire to be exploited or to have a precious resource, water, jeopardized or taken from us. I would strongly urge the Committee not to report out Senate 1844 and to let it die in Committee.

I would appreciate this letter being read to the Committee, and that it be included as part of the official record on the hearings for Senate 1844.

Yours sincerely,

EH/wwt

cc: The Honorable Alan Simpson
The Honorable Malcolm Wallop
The Honorable Richard Cheney

STATEMENT BY GOVERNOR WILLIAM P. CLEMENTS, JR.

TO THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

REGARDING

SENATE BILL 1844
COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

As Governor of a State that is using increasing amounts of Western coal in its utility and industrial boilers, I have been very interested in the progress of coal slurry pipeline legislation before Congress. If coal slurry pipeline projects are not provided the rights of eminent domain, which have long been enjoyed by other energy transportation modes, it is likely that railroads will remain the only available means of transporting Western coal to Texas. I strongly believe that free market principles require that coal slurry pipelines, the only viable overland alternative to rail transportation, be granted this minimal developmental incentive so that they might have the opportunity to compete with and augment the railroads in this area.

Meaningful competition must exist if a market is to produce a result that is equitable and efficient. The American railroad industry is now free of many of the regulations that have been imposed upon it for many years, but in some instances users of the services of the railroads have no alternate means of transportation. This monopoly position of the railroads has resulted in excessive rail rates for coal shipment to Texas. Over the last five years these rail rates have increased by an annual rate of 17.7%. Passage by Congress of the coal pipeline bill (S. 1844) will provide the opportunity for the development of a coal slurry pipeline system, which will safely and efficiently transport the coal needed by electric utilities in Texas and at the same time provide a competitive force to the railroads. And by all indications the experience of the next decade will surpass that of the last, but high rail shipment rates will discourage this transition to coal. If the rest of the Nation had equalled the Texas performance of the 1970s, the U. S. would be energy independent today.

In 1972, Texas' per capita consumption of coal was .2 tons, 1/15th of the national average per capita consumption. Last year Texas per capita consumption was 3.6 tons, 16 percent higher than the national average.

A decade ago Texas ranked number 35 among the states in coal consumption; today it ranks number 3, behind only Ohio and Pennsylvania. And in terms of total coal used by electric utilities, Texas is neck-and-neck with Ohio for the number one position, and should move to number one this year.

In 1972, the U. S. consumed 563 million tons of coal. The cumulative volume of additional coal use above the 1973 base through 1981 was 580 million tons, accomplished during the past embargo period when national policy was directed to increased coal consumption. Of that additional coal use since 1973, 170 million tons were consumed in Texas, 30 percent of the additional national coal consumption.

Stated differently, the amount of 1981 Texas coal consumption above the 1973 embargo year levels was equal to more than 40 percent of the volume consumed in the rest of the entire Nation.

The Texas consumption of coal comes from two sources: bituminous coal imported chiefly from Wyoming, Colorado, and Montana, and lignite coal produced in Texas. Of total consumption last year, 32 million tons were produced in Texas and 21 million tons were imported. This year total consumption will reach nearly 66 million tons. Texas lignite will account for 36 million tons and imports of coal from the West 30 million tons.

Coal in the United States is abundant, and competition among the mines causes a reasonable price to be paid at the mine mouth. However, rail rates are several times higher per ton than is the price of the commodity itself. For example, in Texas, the City of San Antonio presently pays $7.30/ton for coal from Wyoming with a heat content of 8,000 Btu/lb. Transportation charges are $24.64 per ton, which sets the delivered price of coal at $31.94 per ton. Rail rates for the City of Austin and the Lower Colorado River Authority are very similar. Not only are these rail rates very high, they have increased dramatically during the period when the railroads were being freed of regulations: rates in 1976 were $10.93 per ton, escalating to nearly $25.00 per ton in five years, a 17.7% annual rate of increase.

The monopoly position of the railroads has allowed them to receive monopoly profits on the transport of coal to Texas. The total cost of $31.94 per ton is the equivalent of $2.13 per million Btu, which is nearly equal to the cost of natural gas to electric utilities in Texas: the railroads have eliminated any price difference between coal and natural gas that should exist based on the greater abundance of coal. If these high rail rates continue, the Texas record of conversion to coal will be diminished. I believe it is in the national interest to encourage rather than discourage the conversion to coal.

With this highly profitable status as the only transporter of coal, the railroad industry opposes the passage of S. 1844. However, the railroad industry was developed in this country with substantial subsidies provided by the Federal government. No such subsidy is claimed by the proponents of a coal slurry pipeline system, but rights-of-way should be guaranteed so as to allow for the construction of a slurry pipeline system.

I support the position taken by the Texas Energy and Natural Resources

Advisory Council (which I Co-chair with Lt. Governor William P. Hobby, and which is composed of leading elected and appointed officials with responsibilities in the energy and natural resources areas), on December 3, 1981, which passed a Resolution stating, in part:

> RESOLVED, that the Texas Energy and Natural Resources Advisory Council supports the development of coal slurry pipelines and believes that the United States Congress should grant coal slurry pipelines the same right of eminent domain as enjoyed by other modes of energy transportation.

The full text of the Resolution is attached for your information. Expedient passage of this bill will provide the environment for the development of this much needed transportation system. With a fair price for coal, electric utilities will use more of this commodity, thus allowing natural gas to be used for a wider range of purposes and allowing for the conservation of one of the Nation's best and most limited resources.

Since Texas shares the same concerns about water usage and availability with the Western coal-producing states, I believe that individual states should continue to have the right to allocate their water resources. However, I believe that this issue can be fairly and adequately addressed in Federal coal slurry pipeline legislation.

ATTACHMENT

Resolution
of the
Texas Energy and Natural Resources Advisory Council
Regarding
Coal Slurry Pipelines

WHEREAS, transportation rates for coal have escalated dramatically during the past several years; and

WHEREAS, it is recognized that railroads are currently the only available method of long distance, overland transportation of coal; and

WHEREAS, coal slurry pipelines may provide an alternative to the railroads; and

WHEREAS, the establishment of coal slurry pipelines should work efficiently in an open free market; and

WHEREAS, the states have a legitimate interest in the right to allocate water resources and to enforce applicable environmental laws; and

WHEREAS, the potential benefits of coal slurry pipelines may be the reduction of electricity costs to Texas consumers;

THEREFORE, BE IT RESOLVED, that the Texas Energy and Natural Resources Advisory Council supports the development of coal slurry pipelines and believes that the United States Congress should grant coal slurry pipelines the same right of eminent domain as enjoyed by other modes of energy transportation. TENRAC also believes that the allocation of a state's water resources for such purposes should continue to be controlled solely by the individual state.

Adopted this 3rd day of December, 1981.

W.P. Clements Jr.
William P. Clements, Jr.
Governor of Texas
Co-chairman

W P Hobby
William P. Hobby
Lt. Governor of Texas
Co-chairman

STATEMENT OF THE HON. MORRIS K. UDALL
BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES
ON S. 1844

Monday, May 10, 1982

On December 8, 1981, the House Committee on Interior and Insular Affairs recommended the approval of H.R. 4230, the Coal Pipeline Act of 1981. Although the Committee's ultimate decision was that it is appropriate and necessary for the Congress to exercise its powers under the Commerce Clause of the United States Constitution to grant Federal eminent domain authority to coal slurry pipelines, the final vote of 21 to 20 reflects the lively debate that led to that decision.

Most of the concerns and issues that were discussed at the hearings on H.R. 4230 were the result of a misconception as to the scope of the bill. Scenarios were conjured up in which H.R. 4230 was the means by which the national government revoked states' autonomy over their water rights, and then depleted scarce water reserves all in the name of national interest. Such concerns overlook the entire point of the bill. H.R. 4230 does not expand the power of the Commerce Clause, or change the historical attitude toward states' control over their waters, nor does it authorize the construction of a pipeline by some Federal fiat. H.R. 4230 simply gives coal slurry pipeline companies the ability to take advantage of eminent domain powers in the hope that it will expedite the completion of slurry lines.

Perhaps no aspect of coal slurry pipeline development has created more concern than the possible impact on scarce western water supplies and the right of the states to allocate water from beneath their boundaries. H.R. 4230, however, does not create an additional burden to be heaped on top of the legitimate concerns of the western states. There is no discernible support in the current Congress for deviating from its repeated recognition of the exclusion regulation by states over the allocation of water resources. H.R. 4230 in no way changes congressional direction in this area, and in fact, language was specifically incorporated into the bill which makes clear that adherence to state substantive and procedural water law is paramount. As a result, any attempts by a future Congress to invade a state's exclusive power to regulate the use of its water for coal slurry pipelines, or any other use, would not be able to use H.R. 4230 as a springboard for that end. The source for that concern is in a power that Congress has had, and will continue to have, pursuant to its power to enact legislation exercising its Commerce Clause powers. Focusing on H.R. 4230 as if it were an invading germ which threatens states' rights simply misplaces concern. In recommending H.R. 4230, the Committee endorsed the position that passage of the Coal Pipeline Act of 1981 is not to be interpreted as invalidating or superceding the traditional authority and responsibility of a state over its water resources.

I have attached a copy of the legal memorandum that was distributed to the members of the Interior Committee before we marked up the bill. I hope that it will be of some use in your discussion of S. 1844 and the impact of coal slurry legislation on state water law.

I appreciate this Committee's consideration of legislation which can play an important role in supporting competition in the marketplace. I am pleased to have this opportunity to add my statement to the record.

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REPUBLICAN COUNSEL

DEC 5 1981

MEMORANDUM

TO: COMMITTEE MEMBERS

FROM: MORRIS K. UDALL, CHAIRMAN

RE: MONDAY, DECEMBER 7 MARK-UP ON H.R. 4230, THE COAL PIPELINE ACT OF 1981 -- WATER ISSUES

I have long believed that the legitimate water issues involved in the coal slurry bill could be met with carefully drafted legislation. Therefore, I asked the committee staff to look into any reasonable argument that enactment of this bill would somehow override state water rights and to discuss how successfully the pending measure addresses this concern.

Attached is the memorandum resulting from my inquiry.

The memo concludes that the bill is successful in achieving the full degree of protection of state water rights.

I realize, of course, that no one can make a legal argument that cannot be countered by someone else. To me however, the logic of the analysis set out in this memorandum is compelling and far outweighs the other arguments I have heard.

I commend the attached memorandum to your attention.

NINETY-SEVENTH CONGRESS
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December 2, 1981

MEMORANDUM

TO: MORRIS K. UDALL, CHAIRMAN

FROM: INTERIOR COMMITTEE STAFF

RE: WATER ISSUES IN H.R. 4230, THE COAL PIPELINE ACT OF 1981

Because the coal slurry mixture is composed of equal parts of coal and water, a key question in the coal slurry debate is the which governmental entity, state or federal, will control the allocation of water to be used in a coal slurry pipeline, including setting terms and conditions on its use in pipelines. Allocation of water resources has consistently been the subject of exclusive state regulation, and has been so recognized repeatedly by the Congress. E.g. Federal Power Act, §9, 16 U.S.C. §802 (1968); Desert Land Act, §208, 43 U.S.C. §§ 321,666 (1968); Flood Control Act, §1, 33 U.S.C. §701-1 (1968); Reclamation Act, §8, 43 U.S.C §383 (1968).

There is no discernible support in the current Congress for deviating from this longstanding practice in allocating water for coal slurry pipelines. Rather some members of Congress are concerned that in the future a court will interpret H.R. 4230, as enacted into law, as an expression of Congressional intent to invade or subvert a state's exclusive power to regulate the use of water for coal slurry pipelines. This regulation naturally includes conditioning the use of water on stated terms, including priority of use in times of drought.

Congressional power to regulate water resources within the several states can be derived potentially from four sources in American jurisprudence:

1. As a sovereign the United States can exercise eminent domain, subject to the just compensation requirement contained in the Fifth Amendment;

2. The Property Clause of the U.S. Constitution, Article IV, Section 3, Clause 2, is interpreted to allow reservation of water rights for use on U.S. withdrawn land, Winters v. U.S., 207 U.S. 564 (1908), Cappaert v. United States, 426 U.S. 128 (1976);

3. The Commerce Clause, Article 1, Section 8, Clause 3, grants Congress the power to regulate interstate commerce, and

4. The Supremacy Clause, Article VI, Clause 2, gives Congress the power to preempt matters otherwise subject to state regulation.

Each source of power and how it is treated in H.R. 4230 to preserve states' rights and to restrict federal authority will be discussed.

Property Clause

Article IV, section 3, clause 2 states:

> "The Congress shall have Power to dispose of and make all needful, Rules and Regulations respecting the Territory or other Property belonging to the United States; ..."

In 1908 the U.S. Supreme Court interpreted an agreement between Congress and several Indian tribes, which resulted in the formation of the Fort Belknap Indian reservation, to implicitly include reservation of waters sufficient to render the land arable. Winters v. U.S., 207 U.S. 564 (1908). The Court reasoned that in negotiating the land exchange with the Indians, Congress must have intended to reserve to the Indians enough water for agricultural purposes, because the land was arid and worthless without water.

This concept of implied Congressional intent has been extended to all public land withdrawn by the federal government and includes surface and ground water, to the extent needed to accomplish the purposes of the reservation. Cappaert v. U.S., 426 U.S. 128 (1976).

The reserved rights doctrine, by being grounded in the Property Clause of the Constitution as a power of the Congress, is dependent upon Congressional intent at the time of the reservation. H.R. 4230 effectively precludes judicial interpretation of Congressional intent to reserve water for coal slurry pipelines because the bill does not authorize any reservation of public land, and through section 10(a) of the bill, which states:

> "The United States or its agents, permitees, licensees, or transferees shall not reserve, appropriate, use. divert, dedicate, or claim water within any State for a coal pipeline holding a certificate issued under section 10952 of title 40, United States Code, unless such reservation, appropriation, use, diversion, dedication, or claim takes place pursuant to State substantive and procedural law."

Eminent Domain

As a sovereign the United States may exercise the power of eminent domain to condemn private property for a public use. The Fifth Amendment requires that just compensation be made to the land owner, accomplished by negotiation or resort to a court for a determination of the fair market value of the property condemned. Rule 71A, Federal Rules of Civil Procedure. The power of eminent domain may be exercised by the Congress, or delegated by the Congress to an agency, Rindge v. Los Angeles, 262 U.S. 700 (1923).

H.R. 4230 forbids the use of the eminent domain authority by the U.S. or its delegatee to acquire water rights for slurry lines by an amendment to the Interstate Commerce Act, 49 U.S.C. §10101 *et seq*. (Section 5 of H.R. 4230):

> Nothing in this subchapter shall be construed to permit any person (including the Commission, any other official or employee of the United States, or any coal pipeline carrier) to acquire any rights to take, use, or develop water through exercise of the power of eminent domain."

Commerce Clause

Section 10(b) of H.R. 4230 states:

> (b) Pursuant to the commerce clause in article I, section 8 of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions terminating use, on permits or authorizations for the reservation, appropriation, use or diversion of water for a coal pipeline for which a certificate is issued under section 10952 of title 49, United States Code, shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.

There is uncertainty by some as to whether the Congress has the power to grant the states authority to regulate a subject of interstate commerce (water). This question has been directly answered by the United States Supreme Court.

In the unanimous opinion of Prudential Insurance v. Benjamin, 328 U.S. 408 (1946) the Supreme Court addressed the issue of whether Congressional consent or ratification may validate otherwise unconstitutional state action. The Court was called upon to review the constitutionality, under the Commerce Clause, of a South Carolina tax on out-of-state insurance companies doing business within that state, where no such tax was levied against South Carolina insurance companies.

The Court began by dismissing Prudential's assertion that neither Congress acting affirmatively nor Congress and the States thus acting coordinately can validly impose any regulation which the Court has found to be forbidden by the Commerce Clause in the situation where Congress has not regulated. (The Supreme Court had previously decided that in the absence of any statement by Congress, such a state law burdened commerce). The Court responded:

> "Merely to state the position in this way compels its rejection. So conceived, Congress' power over commerce would be nullified to a very large extent. For in all the variations of commerce clause theory it has never been the law that what the States may do in the regulation of commerce, Congress being silent, is the full measure of its power." Id., at 422.

The Court reasoned that the Commerce Clause "is in no sense a limitation upon the power of Congress over interstate and foreign commerce." Id. at 423. Rather, the clause grants Congress plenary power, and it may be exercised to the extent and scope that Congress decides is appropriate. The only limitations upon this power are constitutional rights granted the people of the United States, for example the privileges and immunities clause and the due process clause.

Assuming the South Carolina tax was a burden on commerce the Court then addressed the second question: if the Commerce Clause by its own force forbids discriminatory state taxation, how is it that Congress by expressly consenting can give that action validity? Id. at 426. This question was directed at the McCarran Act, 15 U.S.C. ss 1011-1015, which states in pertinent part:

> ". . . the Congress hereby declares that the continued regulation and taxation by the several States of the business of insurance is in the public interest, and that silence on the part of the Congress shall not be construed to impose any barrier to the regulation or taxation of such business by the several States.
>
> "Sec. 2. (a) The business of insurance, and every person engaged therein, shall be subject to the laws of the several States which relate to the regulation or taxation of such business.
>
> "(b) No Act of Congress shall be construed to invalidate, impair, or supersede any law enacted by any State for the purpose of regulating the business of insurance, or which imposes a fee or tax upon such business, unless such Act specifically relates to the business of insurance . . . ."

The Court stated that Congress intended to declare, and in effect declared, that uniformity of regulation in this area is not required by the national public interest and that conflicting state laws regulating insurance do not place on interstate insurance business a burden which it should not bear Id., at 431.

The McCarran Act also states that the Sherman Act, the National Labor Relations Act, and the Fair Labor Standards Act will apply in force, Id. at 429 n. 37, indicating a Congressional policy that certain federal laws should apply to the interstate insurance business. The Court concluded that the Congress' plenary authority to regulate interstate commerce may be exercised alone, or as in this case exercised in conjunction with action by the states. Id., at 434.

Likewise in H.R. 4230 the Congress is regulating the exercise of eminent domain for interstate coal slurry pipelines, with directions to the ICC and Secretary of the Interior to carry out Congress' intent, while at the same time declaring that it intends that matters of water use for such pipelines be regulated by the states, however, conflicting those state laws may be. That the Congress has the power to declare that state laws regulating water, though that water travels in interstate commerce, sh ll be effective, is subsumed in its plenary power over interstate commerce generally.

For another example of cooperative action between the states and the federal government, see Section 1 of the Natural Gas Act, 15 U.S.C. 5717, and Panhandle Eastern Pipeline Co. v. Public Service Commission of Indiana, 332 U.S. 507, 520 (1947).

Supremacy Clause

Section 10(c) of H.R. 4230 states:

> (c) Nothing in this Act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

This section is intended to foreclose any doubt that the Congress, in voting for H.R. 4230, intends that state procedural and substance laws, rules, regulations, and terms of any interstate compacts respecting water use be continued in full effect. This section precludes any inference that through passage of H.R. 4230 the Congress intended to preempt the field on regulating water resources.

The question of whether the Congress has preempted, or "occupied the field" of regulation of a subject matter so as to preclude state regulation depends entirely on Congressional intent. The Supreme Court recently reviewed the history of judicial review of state laws under the Supremacy law in Ray v. Atlantic Richfield Co., 435 U.S. 151 (1978), when it reviewed Washington State laws regulating oil tankers against the Federal Ports and Waterways Safety Act, 33 U.S.C. §1221 et seq.

The Court affirmed Washington's requirements for smoke abatement because the Federal Act doesn't regulate tankers for that purpose, but struck down Washington laws covering design requirements relating to radar and horsepower because the Federal Act specifically covers these subjects.

The Court began with the premise that the historic powers of states are not to be superseded by a Federal Act unless that is the clear and manifest purpose of Congress. Three tests are used to determine Congressional intent:

> 1. The federal regulation may be so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it;
>
> 2. An Act of Congress may touch a field in which the federal interest is so dominant that the federal system precludes enforcement of state laws on the same subject; and
>
> 3. That the object sought to be obtained by the federal law and the character of obligations imposed by it may reveal the same purpose. Id. at 157.

In applying the foregoing tests to H.R. 4230, the Congressional intent to have the states authority to regulate water use in pipelines is clear and manifest in sections 5 and 10 of the bill. As to the first test, the complete absence of any federal directives as to priority of water use, conditions of water use, or procedures for obtaining water rights, make it clear that Congress has left all the room for regulation to the States. Likewise, in the second test, the bill expresses no federal interest in regulating water use in coal slurry pipelines. Applying the third test, the bill makes clear, and report language will support, the federal objective is to grant eminent domain authority over land only, and to leave to the states decisions regarding water use. The deliberate decision of the Congress to leave allocation of water decisionmaking to the states and the absence of any federal interest in using water for pipelines at the expense of other uses is further supported by the consistent unbroken history in this country of deferring to state water law.

Conclusion

The broad authority of the Commerce Clause includes the power of Congress to reserve to the States authority to regulate water use for coal slurry pipelines while also expressing a federal policy of granting such pipelines eminent domain authority. The four references to state water law contained in H.R. 4230 reflect the judicial interpretations of similar instances of coordinated state-federal regulation, and an analysis of state control over water law in other contexts. All foor sources of federal power, discussed above depend upon interpretation of Congressional intent. Of course the use of language itself has inherent ambiguities, but H.R. 4230 appears to overcome such defects as its language is cast in terms previously construed by courts to achieve recognition of state authority and by the bill's clear legislative history.

STATEMENT OF CONGRESSMAN EDWARD R. MADIGAN BEFORE THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES REGARDING S. 1844

MR. CHAIRMAN and members of the Committee.

I appreciate the opportunity to appear before you to express some of my concerns about S. 1844.

I am not a stranger to coal slurry pipeline issues having reviewed the Office of Technology Assessment study ordered by the 94th Congress, having followed the progress of numerous bills similar to S. 1844 through various Senate and House committees, and having heard testimony on this subject in August 1980 as a member of the House Subcommittee on Transportation and Commerce. Based upon this exposure, I have deep reservations about S. 1844 because of the potential impact of coal slurry pipeline construction and operation on limited water supplies, agricultural producers, the railroad industry, consumers and business that rely on railroads, and its impact of federal-state relations.

There is no doubt that coal slurry pipelines require large quantities of water. For example, it would take about 2.5 million gallons of water to transport 10,000 tons of coal. That same coal could be transported by a 100 car unit train with no water consumption. Since most of the proposed pipelines would originate in the west where water is scarce, such a large consumptive use of water would displace either present consumptive uses or potential future uses of scarce and valuable water. Even in the east and mid-west where water is more abundant, droughts do occur from time to time.

Agricultural producers also voice concern about construction and operation of coal slurry pipelines. This concern arises in part because of the water issues and in part because our nation's energy distribution networks, including electric transmission lines and pipelines for oil and natural gas, traverse hundreds of agricultural counties and millions of acres. The construction and operation of this network has caused many serious disputes about routing,construction and maintenance practices, and damage to adjacent lands. Concern about the effects of a new network of coal slurry pipelines is therefore understandable. Agricultural producers are also concerned about the impact of coal slurry pipelines on the railroads, whose continued operation is essential to the movement of agricultural supplies and products.

Concern about impacts on the railroad industry is legitimate. This industry has been over regulated for decades and Congress only in recent years has begun to reduce this regulatory burden. But railroads remain common carriers with responsibilities to a broad range of shippers, only some of which allow the railroad to recoupe full costs of transportation, including a reasonable return on investment. If slurry pipelines were successful in attracting large coal shipments, our railroads would be deprived of large volumn users. The economic health of our nations railroad system could be further jeopardized, creating the possibility that farmers, other businesses, and consumers would lose the benefits of railroad service. Pipelines do not have the flexibility to carry the wide range of products that railroads carry. Thus, many shippers could be left without adequate transportation services.

I am also concerned about the impact of slurry pipeline legislation on federal-state relations. Land-use issues are historically the province of state and local governments. I do not believe a federal presence should be imposed on state and local governments by passage of federal slurry pipeline legislation granting the power of eminent domain unless there is a clearly demonstrated need.

A need for this legislation, sufficient to offset concerns about water, agriculture, the railroad industry, and federal-state relations, has not been clearly demonstrated. Most of the energy transportation network of powerlines and pipelines has been built without a federal power of eminent domain. And even if additional coal slurry pipelines are not constructed, the Office of Technology Assessment projects that rail systems can be expanded fast enough to meet foreseeable demand for coal.

I do not believe that the grant of eminent domain powers to coal slurry pipelines is in the public interest at this time.

DAN MARRIOTT
2ND DISTRICT, UTAH

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May 6, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
MAY 7 1982
WASHINGTON, D.C. 20510

Honorable James A. McClure
Chairman, Senate Committee on
Energy and Natural Resources
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Mr. Chairman:

It is my understanding that the Senate Energy and Natural Resources Committee will be holding hearings on S. 1844, the "Coal Distribution and Utilization Act", on May 10th and 20th. I would appreciate your inclusion of this letter in the hearing record.

As a fellow westerner from a water-restricted state, I have a substantial interest in this legislation. As a strong proponent of energy independence, I have been in the forefront on both the issue of coal slurry pipelines and the state's authority to decide on the use of its own water resources.

The water language of H.R. 4230, as voted out of the House Interior Committee, is substantially equivalent to that found in Section 6 of S. 1844. Both bills clearly ensure that water use remains solely a state matter. As a western Member of Congress, I am keenly aware of the water concerns of individual states, and I am totally committed to the right of each state to control the allocation of its water to interstate coal pipelines.

After a thorough examination of the water language in both bills, by myself and staff, I am completely satisfied that the bill will in no way damage, reduce or interfere with state water law and rights. In fact, the water language of this legislation enhances the protection of state water rights.

As you are aware, the broad authority of the Commerce Clause includes the power of Congress to reserve to the States authority to regulate water use for coal slurry pipelines while also expressing a federal policy of granting such pipelines eminent domain authority. Allocation of water resources has consistently been the subject of exclusive state regulation, and has been so recognized repeatedly by the Congress. E.g. Federal Power Act § 9, 16 U.S.C. §802 (1968); Desert Land Act, §208, 43 U.S.C. §321,666 (1968); Reclamation Act, §8, 43 U.S.C. §383 (1968).

It is quite evident that the State water law protections of S. 1844 and H.R. 4230 are so thorough that they provide even greater legal safeguards than the states currently possess. Under the bill, each state will decide for itself whether, for how long, and under what conditions state water shall be allocated to coal pipelines.

Section 6 of S. 1844 provides that existing state water law shall not be modified or overridden by the new law, even after a pipeline is approved and starts receiving water.

Also, Section 6 spells out protection for state water law against any possible challenge on grounds of preemption or supremacy of the Federal Government under the Interstate Commerce Clause of the Constitution, short of new legislation.

The language of S. 1844 will in no way change interstate water compacts or laws. The language will not take away a State's right to veto underground or surface uses of water.

As mentioned previously, the water language of these two bills has been carefully reviewed by me and my staff, as well as water experts throughout the West. The language of the legislation is substantially the same as that proposed by the Department of Water Commissioners in Idaho in 1980. The language is also supported by Mr. Ed Clyde, Director of the Department of Water Resources in Utah.

Because the water law so adequately protects the State's interest, in my view, the issue of granting Federal eminent domain for coal pipelines becomes a matter of promoting energy independence and free market competition. As you know, the right of eminent domain has been granted to every other means of energy transportation and the potential coal market is such that it will support both rail and pipeline transportation systems without detriment to our vital rail system.

If S. 1844 is enacted, only those pipeline projects which can be financed in the marketplace will be built. Without enactment, electric utilities will slow conversion to coal and our coal export market will continue to languish, thus continuing our deepening balance of trade deficit due to our reliance on imported oil.

I urge your Committee's prompt and favorable consideration of S. 1844, taking into consideration the time and expertise involved in devising water law protections which are clearly favorable to the States.

Sincerely,

Dan

Dan Marriott

STATEMENT OF

CONGRESSMAN ARLAN STANGELAND

TO THE

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

U.S. SENATE

ON

S. 1844, COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

MAY 10, 1982

FIRST OF ALL, MR. CHAIRMAN, I APPRECIATE ALLOWING ME TO PRESENT TESTIMONY TODAY ON THE ISSUE OF COAL SLURRY PIPELINES AND, MORE SPECIFICALLY, ON S. 1844, THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981. AS A MEMBER OF THE SURFACE TRANSPORTATION SUBCOMMITTEE IN THE HOUSE WHICH ALSO HAS JURISDICTION OVER THIS MATTER, I WOULD LIKE TO SHARE WITH YOU A FEW OF MY THOUGHTS ON THE MAJOR ISSUES THAT ARE NOW FACING THIS COMMITTEE IN ITS DELIBERATIONS ON S. 1844.

A CENTRAL ISSUE IN THIS BILL, AS WELL AS ITS HOUSE COMPANION MEASURE, IS WHETHER COAL SLURRY PIPELINES SHOULD BE ALLOWED TO USE FEDERAL EMINENT DOMAIN IN ORDER TO SECURE THE NECESSARY RIGHTS OF WAY FOR CONSTRUCTION OF SUCH A PIPELINE. I FIRMLY BELIEVE THAT SUCH A GRANT OF EMINENT DOMAIN ON A FEDERAL LEVEL IS UNWISE AND CONTRARY TO THIS ADMINISTRATION'S PHILOSOPHY ON STATES' RIGHTS.

AT THIS TIME, I WOULD JUST LIKE TO CLARIFY ONE POINT THAT HAS BEEN RAISED ON THE ISSUE OF FEDERAL EMINENT DOMAIN FOR BOTH COAL SLURRY PIPELINES AND THE NORTHERN TIER PIPELINE PROJECT. PROPONENTS OF COAL SLURRY PIPELINES HAVE INDICATED TO ME THAT MY SUPPORT OF THE NORTHERN TIER IS SOMEWHAT INCONSISTENT WITH MY OPPOSITION TO SLURRY PIPELINES. I THINK IT IS MIXING APPLES AND ORANGES TO INTERJECT NORTHERN TIER AND EMINENT DOMAIN ON THIS PROJECT INTO THE DISCUSSION OF EMINENT DOMAIN FOR COAL SLURRY. IN THE CASE OF THE NORTHERN TIER PROJECT, FOR EXAMPLE, ACTION BY ONE STATE HAS PRECLUDED NOT ONLY THE CONSTRUCTION OF A PIPELINE BUT ALSO THE MOVEMENT OF ALASKAN OIL TO THE STATE OF MINNESOTA ON ANY

FORM OF TRANSPORTATION. ADDITIONALLY, NATIONAL SECURITY CONSIDERATIONS CLEARLY WOULD INDICATE THAT THE NORTHERN TIER OIL PIPELINE PROJECT IS A MORE IMPORTANT FEDERAL CONCERN THAN THE CONSTRUCTION OF UNNECESSARY COAL SLURRY PIPELINES. IN THIS REGARD, I THINK IT HAS BEEN CLEARLY SHOWN THAT EXISTING TRANSPORTATION MODES ARE ADEQUATE TO HANDLE THE MOVEMENT OF COAL IN A COST-EFFECTIVE FASHION NOW AND IN THE IMMEDIATE FUTURE.'

WHAT I REALLY WISH TO EMPHASIZE TO THIS COMMITTEE IS THAT ONLY UNDER THE MOST PRESSING CIRCUMSTANCES, INVOLVING ISSUES OF NATIONAL SECURITY OR OTHER LEGITIMATE FEDERAL MATTERS, SHOULD WE EXTEND THE CONCEPT OF FEDERAL EMINENT DOMAIN. THE LEGISLATION YOU NOW HAVE BEFORE YOU WOULD INFRINGE UNNECESSARILY AND SIGNIFICANTLY UPON THE RIGHTS AND DECISIONS OF INDIVIDUAL STATES IN A VARIETY OF AREAS, BY REVIEWING THE RECORD OF OUR SUBCOMMITTEE IN ADDITION TO YOUR HEARINGS, I THINK THAT YOU TOO WILL COME TO THE CONCLUSION THAT A SIGNIFICANT PUBLIC INTEREST CANNOT BE DEMONSTRATED TO MERIT THE USE OF THE FEDERAL EMINENT DOMAIN POWER BY THIS TYPE OF PRIVATE ENTITY.

ANOTHER SPECIALLY TROUBLESOME ASPECT OF COAL SLURRY PIPELINES IS THE AMOUNT OF WATER THAT WILL BE DIVERTED FOR USE IN SUCH AN OPERATION, THEREBY DEPRIVING AGRICULTURAL AND OTHER INTERESTS OF THE USE OF THIS MUCH-NEEDED RESOURCE. LET ME JUST HIGHLIGHT A

FEW OF THE PROBLEMS NOW FACING THE UNITED STATES REGARDING WATER. THERE IS A GROWING CONSENSUS THAT UNLESS WE MAKE SOME RADICAL CHANGES IN OUR EXISTING WATER POLICIES, VIRTUALLY ALL SECTIONS OF THE COUNTRY COULD BE FACING SEVERE WATER PROBLEMS BY THE TURN OF THE CENTURY. AS QUOTED IN U.S. NEWS AND WORLD REPORT LAST JUNE, GERALD D. SEINWILL, THEN ACTING DIRECTOR OF THE WATER RESOURCES COUNCIL STATED, "WATER IS THE MOST SERIOUS LONG-RANGE PROBLEM NOW CONFRONTING THE NATION-POTENTIALLY MORE SERIOUS THAN THE ENERGY CRISIS." MAJOR AQUIFERS, SUCH AS THE OGALLALA AQUIFER THAT SUPPLIES WATER TO THE HIGH PLAINS, ARE BEING DEPLETED AT ALARMING RATES.

ONE CONTRIBUTING FACTOR TO THIS LOWERING OF WATER TABLES WILL BE THE ENERGY BOON NOW UNDERWAY IN THE WESTERN UNITED STATES. A TREMENDOUS AMOUNT OF THIS SCARCE RESOURCE IS NEEDED TO MAKE NOT ONLY SYNTHETIC FUELS BUT ALSO TO TRANSPORT COAL BY COAL SLURRY PIPELINES. AS CITED IN THE U.S. NEWS ARTICLE, ONE SUCH SLURRY PIPELINE, A PLANNED WYOMING TO ARKANSAS PIPELINE, WOULD REQUIRE ABOUT 20,000 ACRE-FEET OF WATER PER YEAR. AN ACRE-FOOT OF WATER AMOUNTS TO 325,851 GALLONS OF WATER OR ENOUGH TO COVER ONE ACRE OF LAND A FOOT DEEP IN WATER. THIS IS ONLY THE WATER REQUIREMENTS FOR ONE SUCH COAL PIPELINE!

AS A MEMBER OF THE HOUSE AGRICULTURE COMMITTEE WHO HAS WORKED ON

THIS PROBLEM EXTENSIVELY, I CANNOT SUPPORT SUCH A FOOLISH USE OF THIS LIMITED RESOURCE. FARMERS OVER THE NEXT DECADE WILL HAVE TO CONTINUE TO PRODUCE MORE FOOD TO MEET THE GROWING PROBLEM OF GLOBAL HUNGER. TO ACCOMPLISH THIS, WE MUST HAVE ADEQUATE WATER SUPPLIES AND RICH FARMLAND. ADDITIONALLY, WE SHOULD NOT ENCOURAGE A BIDDING WAR FOR WATER, WHICH, IS NOW BECOMING INCREASINGLY MORE EXPENSIVE. FOR EXAMPLE, HARD-PRESSED FARMERS CAN NO LONGER AFFORD TO IRRIGATE AND ARE FORCED TO SELL THEIR WATER RIGHTS TO ENERGY CONCERNS AND OTHERS. WHEN FARMERS IN UTAH ARE OFFERED $1,750 FOR EVERY FOOT-ACRE OF THEIR WATER THEY SELL FOR A LARGE COAL-FIRED, ELECTRIC GENERATING STATION, IT IS NOT DIFFICULT TO SEE, GIVEN THE DEPRESSED FARM ECONOMY, THAT FARMERS WOULD PREFER SELLING AS OPPOSED TO FARMING THAT LAND.

THESE ARE JUST SOME OF THE HORROR STORIES THAT I COULD CITE ON THE ISSUE OF WATER DEPLETION. FROM AN AGRICULTURAL, ENVIRONMENTAL AND COMMON SENSE PERSPECTIVE, IT IS UNWISE TO REALLOCATE WATER AWAY FROM AGRICULTURE AND FOOD PRODUCTION TO A MODE OF TRANSPORTATION FOR MOVING COAL THAT IS COMPLETELY UNNECESSARY.

WHILE I HAVE CITED TWO PRIMARY CONCERNS THAT I HAVE WITH COAL SLURRY PIPELINES, MY OPPOSITION DOES NOT REST TOTALLY UPON THESE

TWO ISSUES. THERE ARE A MYRIAD OF ISSUES RANGING FROM THE BROADER MATTER OF STATES' RIGHTS IN OTHER AREAS BESIDES EMINENT DOMAIN TO ENVIRONMENTAL CONCERNS OVER HOW TO DISCARD THE POLLUTED WATER AT THE END OF THE PIPELINE TO THE EFFECT THAT THIS TYPE OF PROJECT MAY HAVE ON EXISTING MODES OF TRANSPORTATION. THESE MATTERS HAVE NOT BEEN ADDRESSED SATISFACTORILY.

ONCE AGAIN, I THANK YOU, MR. CHAIRMAN, AS WELL AS THE OTHER DISTINGUISHED SENATORS ON THIS COMMITTEE, FOR ALLWOING ME TO PRESENT MY VIEWS IN OPPOSITION TO COAL SLURRY PIPELINES.

The CHAIRMAN. Our next witness is the Honorable Garrey E. Carruthers, Assistant Secretary for Land and Water Resources, accompanied by David C. Russell, Deputy Assistant Secretary for Land and Water Resources, Department of the Interior.

In view of the size of the witness list I would hope that you could summarize your statement so we could get to the questions as soon as possible. And if we could have also come up at this time the other Government witness, Mr. Donald L. Bauer, Acting Deputy Assistant Secretary for Fossil Energy, Department of Energy. And I hope we could hear the statements of both of these witnesses before we proceed to the questions.

Mr. Carruthers, you entire statement will be made part of the record. You may proceed to summarize or highlight.

STATEMENT OF HON. GARREY CARRUTHERS, ASSISTANT SECRETARY, LAND AND WATER RESOURCES, DEPARTMENT OF THE INTERIOR; ACCOMPANIED BY DAVID LUKEN, SPECIAL ASSISTANT TO THE ASSISTANT SECRETARY FOR ENERGY AND MINERALS, DEPARTMENT OF THE INTERIOR

Mr. CARRUTHERS. Thank you. I appreciate the opportunity to appear before the Committee on Energy and Natural Resources. I have with me, a correction if you will, sir, Mr. David Luken, who is a Special Assistant to the Assistant Secretary for Energy and Minerals, Department of the Interior.

I can summarize in a flash. We oppose Federal eminent domain for the coal slurry pipelines. The President has signed a memorandum to that effect and I would submit it also or the record.

The CHAIRMAN. It will be placed in the record.

Mr. CARRUTHERS. Basically we would afford in this administration, the same protection to land as this bill affords to water. As you know in the West, we have some difficulty separating land and water resources. This administration defends, at every turn, the right of States to allocate and manage all of its natural resources, including land. This bill does not, and, therefore, we oppose Senate bill 1844 on this principle.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Carruthers follows:)

MAY 10 1982

STATEMENT OF GARREY CARRUTHERS, ASSISTANT SECRETARY, LAND AND WATERS RESOURCES, DEPARTMENT OF THE INTERIOR, BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES, UNITED STATES SENATE, ON S. 1844, A BILL "TO FACILITATE THE NATIONAL DISTRIBUTION AND UTILIZATION OF COAL."

Thank you for the opportunity to appear here today to present the views of the Department of the Interior on S. 1844, the proposed "Coal Distribution and Utilization Act." While S. 1844 is, at first glance, a proposal dealing with energy and transportation policy, it also raises significant questions about the relationship between Washington and the States.

S. 1844 would require the Secretary of Energy to review applications for the construction of interstate coal pipeline distribution systems and, using specific guidelines spelled out in the bill, to determine whether such systems are in the national interest. Any person proposing to build an interstate pipeline distribution system which the Secretary of Energy finds to be in the national interest would be authorized to acquire rights of way over, under, upon or through private lands by the exercise of the power of eminent domain. However, the power of eminent domain could not be used to acquire water rights, land which is part of a National, State or local historic site, or land designated as wilderness or wildlife refuges unless there is no feasible and prudent alternative to the acquisition of such rights-of-way and reasonable planning is made to minimize harm to these sites.

The bill would amend section 28(a) of the Mineral Lands Leasing Act to authorize the Secretary of the Interior to issue rights-of-way through Federal lands for the transportation of coal. The bill specifically provides that it would not affect States' water rights. It contains several provisions designed to ensure that State water laws will not be circumvented. Finally, the bill would not alter any interstate water compacts, nor would it affect the regulation of interstate common carriers.

Coal is our most abundant resource of energy and was actually our single largest source of energy before petroleum and natural gas supplanted coal earlier in this century. Petroleum and natural gas were easier to tranport than coal and this fact, among others, accounted for coal's decline as an energy source. Slurry pipelines have been offered as a more economically efficient and environmentally attractive mode of coal transport that could contribute to our goal of increasing coal's role in our energy future.

Whether the claims of slurry advocates or the charges of slurry opponents are true is beyond the scope of my statement and, perhaps, even beyond the reach of Federal legislation. These are controversies that only the market can settle. In fact, the issue before us this morning does not focus on the question of whether slurry systems should be licensed; rather, it focuses on who—what level of government—should make this decision.

One of the foundations of the Reagan Presidency is the conviction that the steady accretion of decision-making authority in Washington was an historic mis-step that must now be reversed if Federalism is to have any meaning. This was a tenet of the platform that President Reagan was elected to implement, and he continues to view that platform as a contract between himself and the electorate.

The President renewed his dedication to the New Federalism in a speech last fall at Yorktown during the bicentennial of America's victory concluding the War for Independence. The President said:

> "Our Founding Fathers devised a system of government unique in all the world--a federation of sovereign States with as much law and decision making authority as possible kept at the local level.
>
> This concept of Federalism has been the secret of America's success and will be a priority again as we restore the balance between the Federal, State and local levels that was intended in the Constitution."

The President struck a responsive cord when he talked about returning to the kind of government our Founding Fathers envisioned.

The need for rebalancing our Federal system was apparent long before Secretary Watt became a member of the President's Cabinet. The urgency of the need became even more evident to us when we began reviewing Department of the Interior policies, programs, and attitudes to detemine how to relieve the pent-up hostilities against our Department and to reduce unnecessary spending in line with the President's Economic Recovery Program.

In the past there has been a tendency for Federal agencies to implement laws and programs in ways which enlarge the Federal bureaucracy and agency budget, which leave little or no dicretion to State and local jurisdictions, and which sometimes run roughshod over the legitimate wants and needs of the citizens. The Reagan Administration is bringing change. We are looking for ways to return responsibilities and resources to the States and ways to halt the accretion of new authorities at the

Federal level. Thus, Federalism is a test we will apply time and again in situations like this, where some worthy national goal is used as a rationale for concentrating even more decision-making in Washington.

The legislation before us this morning fails this test by arrogating to Federal officials a decision that can and should be made by officials at the State level. It does so by seeking to grant to slurry-systems a power that can and should be exercised at the State level.

Great care has been shown in the drafting of this legislation to ensure that State sovereignty over water allocation is neither encroached upon nor diminished. While we have no way of knowing how this language will be interpreted in the future by the Courts and others, we are struck by its implicit recognition of the fact that State water authorities should forever remain beyond the reach of Federal officialdom. However, it is ironic that we are making every effort to protect State authority over water while seriously considering diminishing State authority over the disposition of non-Federal lands within their boundaries. We question whether State authority over land is any less worthy of our concern and protection than State authority over water.

We do not share the pessimism of those who believe that the States will not act responsibly in helping to attain national energy goals. In fact, the Secretary shares President Reagan's belief that, because the elected representatives at the State and local levels are most accessible to the people, they are the most knowledgeable, and more important, the most accountable for their actions. I have attached to my statement for your consideration a copy of the November 16 memorandum that President Reagan sent to Secretary Watt on this subject.

We believe that the government is best which remains closest to the people. We should fight vigorously to ensure that we reverse the flow of power of the last several decades and demand recognition of the distinction between the powers granted to the Federal government and those reserved to the States or to the people.

In conclusion, Mr. Chairman, we oppose the extension of Federal eminent domain authority to coal slurry pipelines because we believe that such decisions can and should be made by the States involved. In doing so, we do not pass judgment on the claims of slurry supporters or the charges of their opponents about the worthiness of slurry systems. We simply believe that the time has come to halt the concentration of decisionmaking in Washington.

This concludes my prepared statement. I will be pleased to answer questions.

THE WHITE HOUSE
WASHINGTON

November 16, 1981

MEMORANDUM FOR THE SECRETARY OF THE INTERIOR

SUBJECT: ADMINISTRATION POSITION ON LEGISLATION ON COAL SLURRY PIPELINES

After considering the information presented during the Cabinet Council on Natural Resources and Environment, it is my view that this Administration should support competition in the fields of energy development and transportation. Coal slurry pipelines may be an efficient and cost-justified way to move coal and they should be allowed to compete on their own merits as contributors to improving America's energy situation.

I recognize that there may be significant problems in right-of-way acquisition. However, this Administration will not support legislation which has been introduced in Congress to provide a federal right of eminent domain to override these difficulties. Our commitment to the vitality of state governments should not be abandoned simply because it may at times be inconvenient. The extension of federal powers of eminent domain should not be undertaken lightly.

At the same time, it is clearly contrary to the national interest for private parties such as railroads, or for individual states, to thwart projects beneficial to the nation simply for their own parochial purposes. I am therefore directing the Secretary of the Interior, the Secretary of Energy and the Director of the Office of Intergovernmental Affairs to work with states and private parties to ensure that coal slurry pipelines are not prevented from competing by unjustified impediments to their ability to negotiate for rights-of-way.

I believe this is the best resolution of a difficult question involving a conflict of the principles of federalism with the nation's need for competition in transportation.

X Ronald Reagan

cc: Cabinet Council on Natural
Resources and Environment

STATEMENT OF HON. DONALD L. BAUER, ACTING DEPUTY ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY; ACCOMPANIED BY MARIO CARDULO, OFFICE OF FOSSIL ENERGY, DEPARTMENT OF ENERGY

Mr. BAUER. Thank you, Mr. Chairman.

I have with me, with the committee's permission, Mario Cardulo from the Department of Energy, coordinator of the Coal export Task Force.

I will also summarize my statement and wish it be submitted for the record.

The Department of Energy also opposes S. 1844. The fundamental principle underguarding the administration's domestic policy is its commitment to State and local government. During the past few decades the Federal Government has stepped further and further away from the concept that a government closer to its citizens reflects more properly our legislative needs and wants.

There is no question that the acquisition of crucial rights of way has presented significant problems to the construction of coal slurry pipelines. You might say that the administration is in support of competition for coal development, energy development, and transportation; not granting a Federal eminent domain does not kill the issue.

Coal slurry pipelines have two other ways of obtaining rights of way. That is the State eminent domain and private agreements.

Mr. Chairman, the Department of Energy believes that either of these two options or a combination represents viable alternatives for the concept of the coal slurry pipeline.

Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Bauer follows:]

Statement of Donald L. Bauer
Acting Deputy Assistant Secretary
for Fossil Energy
U.S. Department of Energy
to the
Energy and Natural Resources Committee
U.S. Senate
May 10, 1982

The Committee has requested that the Department of Energy present its position on S.1844, the Coal Distribution and Utilization Act of 1981. As the Chairman indicated in his letter of invitation, the bill would facilitate the development of interstate coal pipeline distribution systems by granting the Federal power of eminent domain when it can be determined that the systems are in the national interest. The bill would give the Secretary of Energy the authority to make such determinations.

The Department of Energy opposes S. 1844. A fundamental principle undergirding this Administration's domestic policy is its commitment to State and local governments. During the past few decades, the Federal Government has stepped farther and farther away from the concept that a government closer to its citizens reflects more properly their legitimate wants and needs. The Administration is committed to reversing that trend and to restoring the vitality of State and local governments. Granting Federal eminent domain for coal slurry pipelines is contrary to that commitment. This is a decision that can be and should be made at the State level.

As President Reagan said in his November 16, 1981, memorandum to Interior Secretary James Watt on this issue, "Our commitment to the vitality of state governments should not be abandoned simply because it may at times be inconvenient. The extension of federal powers of eminent domain should not be undertaken lightly."

As members of the Committee are aware, there are two existing slurry pipelines. The first operated in Ohio from 1957 to 1963. The other, the Black Mesa pipeline between northern Arizona and southern Nevada, has operated successfully since 1970. A third slurry pipeline, sponsored by Energy Transportation System Inc., is planned for construction in the 1983-85 timeframe and would run from Wyoming to points in Oklahoma, Arkansas and Louisiana.

There is no question that the acquisition of crucial rights-of-way has presented significant problems to the construction of coal slurry pipelines. If Federal eminent domain is not available, coal slurry pipeline projects have two alternatives for obtaining the rights to cross private land:

State eminent domain: Any state could allow eminent domain for coal slurry pipelines. To date, twelve states have exercised that authority. They are Utah, Wyoming, Colorado, North Dakota, Oklahoma, Texas, Arkansas, Louisiana, Florida, Ohio, West Virginia, and North Carolina. Florida grants the right to slurry lines entering from states that also grant eminent domain to coal slurry pipelines, although none of the states adjacent to Florida have granted that right. One state, Virginia, has a law specifically barring coal slurry pipelines from eminent domain. Oil pipelines acquired their rights-of-way primarily through state eminent domain, beginning with the first legislation passed in 1883 in Pennsylvania. Today, all 48 contiguous states have state eminent domain for oil pipelines.

In the case of the Ohio coal slurry pipeline referenced above, the State granted eminent domain and the 108-mile long pipeline was contained completely within state boundaries.

Private agreements: If unable to obtain eminent domain rights at either the State or Federal level, a second option would be to obtain rights-of-way through private agreements with landholders. An objection to this alternative has often been that many landholders would demand charges above fair market values for rights-of-way desired by a pipeline project. "Fair market value" is a parameter that strongly varies during the course of the overall acquisition process. It is our view that the negotiating process required to determine the costs of land acquisition is consistent with free market principles and is not a process requiring Federal intrusion.

Of course, a more serious problem is presented by landholders who refuse to provide rights-of-way regardless of the potential for economic gain. This is a difficult obstacle, but one that is not insurmountable. The ETSI pipeline, failing to reach agreement with the railroads whose rights-of-way it would have to cross, successfully prosecuted 65 lawsuits to gain those rights. ETSI also had to negotiate with approximately 5000 non-rail land owners to gain rights-of-way over the entire 1,500-mile route. The negotiating process began in January 1981 and ETSI plans to have in hand all the rights of way by the middle of this year. The process is often a lengthy one, but at least one group of firms has made the judgment that the potential economic value of a coal slurry pipeline outweighs the inconvenience and possible delays in obtaining individual rights to cross lands.

Mr. Chairman, the Department of Energy believes that either of these two options, or perhaps a combination, represent viable alternatives to the concept of Federal eminent domain for coal slurry pipelines. We have sufficient confidence that free market principles and the ability of State governments to make knowledgeable and responsible decisions will result in the development of coal slurry pipelines if the economic prospects are sufficiently attractive.

Most importantly, these alternatives will ensure that development of such systems is done in concert with the needs and concerns of local citizens, not at their expense. It is important to note that S.1844 recognizes the need to apply this principle to water allocation. Section 6 of the bill goes to great lengths to ensure that state authority is protected in regard to water. The Administration's position simply extends this same fundamental principle to State and privately-owned land.

I will be pleased to respond to any questions the Committee may have.

The CHAIRMAN. Senator Johnston?

Senator JOHNSTON. Mr. Secretary, as I read your statement, it states that "Great care has been shown in the drafting of the legislation to insure the State sovereignty of water allocation is neither encroached upon nor diminished." Do I understand that you agree this is carefully drafted language that achieves that purpose?

Mr. CARRUTHERS. I don't have any problems with that particular language. I just have problems that it wasn't extended to the lands in the State as well.

Senator JOHNSTON. You think the principle is good, it just doesn't go far enough?

Mr. CARRUTHERS. Yes, sir. We protect the States rights to allocate and manage all of its natural resources. The language in this bill could be adequate for water resources, the problem is with the land resource. There are other resources in the State that we believe the State ought to allocate and manage, including fish and wildlife, its own oil and gas resources, and so on. We don't believe the Federal Government needs to accumulate any rights to management and allocation of any of these.

Senator JOHNSTON. This bill is not to be faulted for not going the extra step in dealing with some other items that ought to fall within the States jurisdictions. I mean you can't solve all of the problems with one bill. This is a good first step; wouldn't you agree?

Mr. CARRUTHERS. We see this as an accumulation, a slow accumulation of rights that once belonged to the States, to Washington, D.C., and to the Federal Government. And this administration does not particularly support that. We are reassured by your attitude on water rights, we are not as reassured by your attitude on land rights.

Senator JOHNSTON. I understand, by the way, that the Departments of Energy, Justice, Transportation, and the Council on Environmental Quality, supported as well as Commerce, State, and U.S. Trade Representatives, supported option one which was the right of eminent domain for coal slurry pipelines; am I correct on that?

Mr. CARRUTHERS. Mr. Chairman, I cannot tell you if those agencies were in support or not. We can furnish that for the record. The important point to be made is the President of the United States did not support it, and felt he should send a memorandum to the Secretary of Interior as Chairman of that body, indicating his preference not to support it.

Senator **Johnston**. Thank you, Mr. Chairman.

Senator **Murkowski**. Thank you, Mr. Chairman.

You indicate you oppose the extension of Federal eminent domain authority because you believe that such decisions can and should be made by the States involved. Is that generally a policy of the administration or is it peculiar to this coal slurry matter particularly?

Mr. **Carruthers**. We have a lot of confidence in the States. We have every reason to believe the States are making decisions in the national interest.

Senator **Murkowski**. Do you agree with the decision of the State of Washington on the northern tier pipeline?

Mr. **Carruthers**. Personally do I agree with it?

Senator **Murkowski**. Let's try it personally and let's try it from the standpoint of the administration.

Mr. **Carruthers**. I agree with the right of the State of Washington to make that decision.

Senator **Murkowski**. That is your personal opinion?

Mr. **Carruthers**. That is my personal opinion. I think it's the administration's opinion.

Senator **Murkowski**. But the administration would like to see it turned around?

Mr. **Carruthers**. I can't speak for the administration on that. I believe the President could speak on that.

Senator **Murkowski**. Has there been any——

The **Chairman**. Have you asked Dave Stockman? [Laughter.]

Mr. **Carruthers**. I think, Senator, that you are suggesting I have better contacts than I really have.

The **Chairman**. I thought maybe you found out whether Dave Stockman was going to let the President make a statement on that.

I just assumed he had better contacts.

Do you know who might be directed in the Department of Energy to represent the Department of Energy's viewpoint for the northern tier on behalf of the administration?

Mr. **Carruthers**. I'd have to defer to the Department of Energy.

Senator **Murkowski**. It seems that we have somewhat of an inconsistency here, but I don't expect you to acknowledge that.

Tell me, do you think that the bureaucratic system can write language that could provide protection in case of the concerns expressed by the Congressman and the Senator? I believe you heard testimony which was relative to how in the event that the coal slurry goes ahead and the States grant the water rights, in the event the water rights would have to be rescinded. Do you think we could provide language that would address that concern with the necessary stipulations to protect all those concerned?

Mr. **Carruthers**. I think language could be provided. That does not get us to the principle that I wanted to address and that is whether it should be provided. You have protected water rights in this bill, you haven't protected land rights in the States. And you would have to write language to do that. Should you protect both land and water rights, and not address any other issues, you would have a bill that glorifies coal slurry pipelines, and we're not against that. We just don't think you resolved the problem that you tried to resolve in the first place. And we think those problems have to be addressed State-by-State and not by the Federal Government.

Senator MURKOWSKI. That application applied to railroads of course. The railroad situation is a little different than it was 150 years ago, but if we consider the same concept of States' rights while under the present attitude, we would have had to depend on each State agreeing with the next State before a railroad could go to the third State, is that right?

Mr. CARRUTHERS. That is true.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Senator NICKLES. Thank you.

I would like for Mr. Carruthers and Mr. Bauer to continue on Senator Murkowski's train of thought. I appreciate your interest in trying to preserve and protect States' rights, the right of eminent domain. Were most all the railroads, I'm not versed well enough, were the railroads basically built, given the right of eminent domain?

Mr. CARRUTHERS. Many of the railroads were built on public lands that went to the West. I can't speak for all railroads, but I would guess history would reflect a good share of the lands taken were from the public domain. As a consequence, Federal eminent domain was never questioned. You don't need it.

Senator NICKLES. What about in those areas, say the development in the East where it wasn't public land? Were they granted eminent domain?

Mr. CARRUTHERS. I think they were subject to State laws during those times.

Senator NICKLES. They didn't have a blanket eminent domain?

Mr. CARRUTHERS. Not to my knowledge, but I'm not an expert.

Senator NICKLES. Let me move over to gas pipelines. We have quite a gas pipeline interstate system. Do they have eminent domain?

Mr. CARRUTHERS. It's my understanding that natural gas lines are the only ones that now have Federal eminent domain.

Senator NICKLES. And they still have it?

Mr. CARRUTHERS. Currently, yes.

Senator NICKLES. So if you wanted to run a line say from Texas up to Chicago, which there are several lines now, but if you wanted to do that you would basically have eminent domain?

Mr. CARRUTHERS. That is my understanding.

Mr. BAUER. Yes, all they would need to do is obtain a certificate from the Federal Energy Regulatory Commission.

Senator NICKLES. Is there any, and I'm not saying that's a good policy or a bad policy, I'm trying to get some type of assemblance between various modes of transportation of energy.

Has there been an outcry against that policy for natural gas pipelines where they've been running over States' rights or infringing on States' rights? I'm thinking the State of Louisiana and my State. We have a lot of pipelines. Gas pipelines, oil pipelines. I'm not aware of people saying this has been a bad thing for our State or other States.

What about oil pipelines? Oil pipelines don't, is that correct?

Mr. LUKEN. That's correct.

Senator NICKLES. Did the oil pipelines have eminent domain initially?

Mr. LUKEN. Initially some of the larger pipelines were built under war powers in the 1940's. There have also been times when individual pipelines had individual grants of eminent domain, but none of those have been recent. Most of them were in the 1920's and 1930's. In some cases the 1940's.

Senator NICKLES. So maybe for some of the first oil pipelines, and I guess all of the gas pipelines, I'm thinking all the way back to the old——

Mr. LUKEN. Gas pipelines came along later for technical reasons, but basically gas pipelines have had Federal eminent domain since the Natural Gas Act of 1935 or 1938.

Senator NICKLES. What is right about gas pipelines having eminent domain, and say other pipelines, whether it be oil or coal slurry or, I'm thinking out loud, but is that right that they should and he shouldn't?

Mr. CARRUTHERS. This would not mean that this administration would support it. The fact that it's there, it's there. We might not lead a crusade to change it, but when you come to this administration, this President campaigned on the idea that we ought to have a New Federalism. That we ought to acknowledge States' rights, and we've always tried to adhere to that in all of our policies.

The fact that one exists already from a previous administration is something that we might want to address.

Senator NICKLES. I understand. As far as the national interest, do you think the fact that interstate gas pipelines were granted eminent domain has been a positive thing for our country?

Mr. CARRUTHERS. I just can't answer that honestly. I don't know. I don't know how many times it was applied.

Senator NICKLES. Did the interstate highway system have eminent domain? Do they still have that today? Do we have eminent domain under our highway transportation system?

Mr. LUKEN. They were all done under State law.

Senator NICKLES. I understand the States would want interstate highways so, well, what about for our waterway system? It's under State law but not under Federal law?

The CHAIRMAN. I wonder if the witnesses would give a verbal response. The nods of the head don't show in the record.

Senator NICKLES. I tried, well I'm very much interested in the competition in all types of fields and I think we weigh this. I noticed the President's memo to the Secretary of the Interior, he said that a lot of work was being done. He mentioned the States' rights, and then his third paragraph, he talks about the fact that the Secretary of the Interior and Energy would work with the States and private parties to assure coal slurry pipelines are not prevented from competing by unjustified impediments in their ability to negotiate rights-of-way.

Has anything been done by Interior or Energy to see that that is the case?

Mr. CARRUTHERS. Yes, we're working right now on the ETSI pipeline case, and we're trying to insure that case can be carried through to fruition. You're aware of that pipeline out of Wyoming to the south. And we've had some involvement with that.

Additionally——

Senator **Nickles**. How is that? Have you found some impediments?

Mr. **Carruthers**. No, the Bureau of Land Management was the lead agency on the environmental impact statement and as a consequence we've had a long term involvement.

More recently the Bureau of Reclamation has become involved in the water sale from the reservoir to the ETSI pipeline company. And we've been involved with that and are still in discussion with the Corps of Engineers over that issue.

Additionally, the Bureau of Reclamation recently joined with another company interested in developing new technology for coal slurry pipelines and we are encouraging them. In this particular case they propose to do something with saline water and to move coal slurry and saline water. The Bureau of Reclamation has agreed to support them in certain kinds of information. So we are moving in support of coal slurry pipelines.

Senator **Nickles**. Have you found some impediments on, say the ETSI pipeline, whether it be railroads or some other group? What impediments have you found that are blocking that pipeline?

Mr. **Carruthers**. The ETSI pipeline as you know, already has its rights-of-way. The last right-of-way granted was from the public domain by the Bureau of Land Management at the very short distance of about 6 miles. The question there is a matter of water rights and where they would obtain the water for the coal slurry. That has involved the Bureau of Reclamation and the Corps of Engineers because it's a corps dam but the Bureau of Reclamation sells services out of the dam. We're still discussing legal aspects of that.

The **Chairman**. Mr. Carruthers, you were here in the room when Senator Andrews gave his testimony. I assume that you heard his testimony, is that correct?

Mr. **Carruthers**. Yes.

The **Chairman**. Has the Department addressed the kinds of questions with respect to State water rights that Senator Andrews raised in his testimony?

Mr. **Carruthers**. If I recall, the point you may be making, Senator, was the problem with allocating water to a coal slurry pipeline and then retrieving that water right at a later period. That was the one that struck me. Our position would be that it's up to the State, as in ETSI case, if they want to allocate on an interim basis the 20,000 acre field of water, which they did. And in the case of South Dakota, they chose an interim contract, not a forever and ever contract. I would suspect that the resolution of this problem could be in terms of interim contract, as long as you could grant one long enough to satisfy the company who is building the pipeline.

The **Chairman**. Are you familiar with the *First Iowa* case to which he made reference?

Mr. **Carruthers**. No.

The **Chairman**. You couldn't address any of the questions that might have been raised as he raised them this morning with regard to that case?

Mr. Bauer, are you familiar with the *First Iowa* case?

Mr. BAUER. No.

The CHAIRMAN. Are you familiar with the general question of whether or not the Federal Government has the right to preempt? I assume that you are. We all are in a general sense. Is that, is the fear expressed by Senator Andrews a substantial legal question with respect to the statement of a specific objection or the granting of a specific priority to State law as this bill would do? Does that raise questions with respect to all other applications of the law that are not specifically addressed?

Mr. BAUER. I believe it does, sir, and furthermore, I believe in reviewing S. 1844, one needs to visit the issue and I think now we're at a time where the marketplace is going to decide our energy development and our modes of transportation. I believe the States and the local citizens are in the best position to judge what is right for them and their needs. I believe that they at any one time will be considerate of our national needs and national security.

The CHAIRMAN. Do I understand, Mr. Carruthers, well, let me rephrase it.

You said in response to earlier questions that the water language in this bill seems to be sufficient, but if you haven't anaylzed it with regard to the later override questions, have you looked at the implications of the *First Iowa* case? I just wonder, is that a considered opinion on your part?

Mr. CARRUTHERS. I interpret the language, as I read it last evening, to say it's up to the States to allocate and manage its water resources.

The CHAIRMAN. Haven't you read it before?

Mr. CARRUTHERS. No, sir.

The CHAIRMAN. Has the Department analyzed this language with respect to the issue of State versus Federal preemption other than from the standpoint that the administration doesn't desire to intrude on the State-Federal relationship?

Mr. CARRUTHERS. I don't think there's been an indepth analysis and I don't think it's necessary. It rather clearly states this bill will in no way offend or impinge upon the State water laws.

The CHAIRMAN. I regard that as kind of an amazing statement in as critical area as this one to say I haven't read it and I haven't analyzed it, I take it at face value. When the courts read and analyze it they come to different conclusions.

What I'm really getting at is whether or not the statement that you made earlier, that you regard this language as being sufficient, is that just an off-the-top-of-the head opinion, or is it on the basis of legal analysis and careful consideration of all the ramifications of the language?

Mr. CARRUTHERS. It does not include legal analysis by the Solicitor's office which we would be more than pleased to provide for the record. And we will get that to you.

The CHAIRMAN. If you could do that I'd appreciate it. Although certainly from the standpoint of the administration, I understand that the other consideration, therefore you didn't analyze this particular language with respect to its sufficiency to accomplish what it is intended to accomplish. You arrived at your decision on different grounds, and I understand that difference, but I also want to get on the record the basis of your statement, the language appears to be sufficient to protect the State rights.

States aren't always that certain that the Federal Government is careful of States' rights and I appreciate what this administration is doing and has done, but I remember too, the issue to which Senator Goldwater addressed himself and the issue between the Colorado Basin States and the State of California with respect to the use of Colorado River water. I've forgotten how long that case was in litigation, but it was years and years and years before it was finally concluded. And the State of California lost. They said the compact in that case controlled. I think it was not a State-Federal relationship as much as it was a fact in that instance there was a compact in which Colorado had entered, in which California and Arizona and other basin States had entered.

But regardless of the basis of that lawsuit, the State of California lost it, and then Arizona came in to exercise their rights under that case, to the water that was granted to them under the compact in the consideration of the central Arizona project, and the State of California says, oh no you don't, you don't exercise your rights under that because we have a political lock on what happens in terms of Federal projects, and until you give back some of what you won in that lawsuit, you're not going to have any central Arizona project.

And the State of Arizona did, as a matter of fact, then turn around and give back something which they had won after years of litigation, in the Supreme Court more than once, and the State of Arizona was ultimately, I was going to say the loser, but that's obviously not the case. They were able to get the central Arizona project, but they had to deal away some of their water rights in order to get it. These matters have a long and tortured history in which it isn't simply a matter of what do the words say on a piece of paper.

There are economic forces that come into play. There are political forces that come to bear, and the balances are somewhat different than the first perusal of the language would indicate.

And all I'm trying to get on the record at this point is whether or not you went down that road to look at that issue. And I would understand from your responses at this time, and I'm not trying to put words in your mouth, but I want to be very careful that your analysis was based upon the State versus Federal, rather than upon the specific language and its sufficiency to accomplish what the language says it will do.

Mr. CARRUTHERS. That's correct, Mr. Chairman, and I appreciate your comments very much because this legislation and other legislation by the Federal Government has impacted the States' rights. For example, the Endangered Species Act, in some States, infringes upon State water law in that it declares that there oftentimes must be water available for an endangered species, and the State cannot regulate this allocation. That may not have been unintentional in the passage of the act, but it can provide for that sort of outcome. So I appreciate that we need to look at things more carefully in terms of how they might impact the State.

The **Chairman**. Mr. Bauer, in the Department of Energy, has a specific legal analysis been made of the language of this legislation with respect to the State-Federal water rights question?

Mr. **Bauer**. No, it hasn't.

The **Chairman**. The decision of Energy was done on the same basis as——

Mr. **Bauer**. On the basis of Federal eminent domain today as for the gas companies, and since there is no alternative mode of transportation, the oil companies received their rights of eminent domain back in like 1883. There are 12 States today that have eminent domain for coal slurry pipelines. It was on that basis, and on ETSI, that we performed the analysis of what is happening to date, what has happened in the past, and then the States' rights issue.

The **Chairman**. If I understand correctly, from both the Department of Interior and the Department of Energy, no comprehensive legal analysis of the language has been made?

Mr. **Bauer**. I have not done that, sir.

The **Chairman**. If I understand correctly, and I want to call attention to page 2 of your statement, Mr. Bauer, on page 2, under the paragraph entitled State Eminent Domain, you listed 12 States that have granted by State statute the right of eminent domain for coal slurry pipelines, and one State, the State of Virginia, which has specifically barred coal slurry pipelines from eminent domain. The other States are silent with respect to this issue, am I correct?

Mr. **Bauer**. Yes, sir.

The **Chairman**. And all 48 contiguous States have State eminent domain for oil pipelines?

Mr. **Bauer**. Yes, sir.

The **Chairman**. The oil pipelines have proceeded under State eminent domain statutes rather than any attempt to assert Federal eminent domain?

Mr. **Bauer**. That's correct.

Senator **Johnston**. Mr. Chairman, the question frequently comes up as to whether the railroads or oil or gas pipelines have eminent domain. I have here a Congressional Research Service memorandum prepared by Robert Melch, February 25, 1982, which cites chapter and verse, the eminent domain power given to the railroads, Northern Pacific, Union Pacific, Atlantic and Pacific, et cetera, along with condemnation powers to other public and private corporations including the Natural Gas Act, interstate petroleum pipelines, Federal Power Act, Tennessee Valley Authority, Energy Security Act, even to the District of Columbia Redevelopment Commission, and the Pennsylvania Avenue Development Corp. In view of the fact that this question frequently comes up about whether the railroads have, in fact, been given eminent domain authority, and the record shows that they have and that they have exercised it freely and properly in the national interest, I wonder if it might not be appropriate at this point to put this memorandum in the record.

The **Chairman**. So ordered.

[The memorandum follows:]

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

February 25, 1982

TO : Honorable J. Bennett Johnston, Jr.
Attn: Daryl Owen

FROM : American Law Division

SUBJECT : Delegations of the Federal Power of Eminent Domain to Public and Private Corporations

In response to your request for the compilation described above, we have enclosed a report of the same name prepared by Robert Meltz of the American Law Division, CRS.

Robert Meltz

Robert Meltz
Legislative Attorney

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

DELEGATIONS OF THE FEDERAL POWER OF EMINENT DOMAIN TO PUBLIC AND PRIVATE CORPORATIONS

Robert Meltz
Legislative Attorney
American Law Division
February 25, 1982

DELEGATIONS OF THE FEDERAL POWER OF EMINENT DOMAIN TO PUBLIC AND PRIVATE CORPORATIONS

The ability of Congress to delegate its power of eminent domain is beyond dispute. Sackman, Nichols on Eminent Domain sec. 3.1[2] (rev. 3rd ed. 1974). In the large majority of cases, the delegatee of the power is an official within the executive branch, at whose request the U.S. Department of Justice files a petition in condemnation in Federal district court. In some instances, however, the delegatee is an entity outside the Federal Government -- typically a publicly or privately chartered corporation.

This report compiles several instances where Congress has delegated the Federal eminent domain power to public and private corporations. The list is certainly far from exhaustive, however; there is no research technique assured of flagging every such instance in the U.S. Code.

Not included here are cases where the Federal Government avoids delegation of the condemnation power to a private party through the device of itself condemning the real property interest and immediately thereafter conveying or leasing the condemned interest to the private party. See, e.g., Public Utilities Regulatory Policies Act of 1978, sec. 602.

RAILROADS

Several delegations of the Federal condemnation power were made to the land grant railroads during the 1860's. The delegation to the Atlantic and Pacific Railroad Co. is representative in its statement of the purposes for which the granted power could be exercised:

> [the railroad] is . . . empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road."

See citation below. Examples include:

> Act of July 2, 1864, 13 Stat. 369. To the Northern Pacific Railroad Company.

> Act of July 2, 1864, 13 Stat. 357. To the Union Pacific Railroad Co. and other railroads involved in a transcontinental line.

> Act of July 27, 1866, 14 Stat. 296. To the Atlantic and Pacific Railroad Co.

A more recent railroad delegation is:

> Public Law 91-518, 45 U.S.C. sec. 545(d)(1). To the National Railroad Passenger Corp.

PIPELINES

Research reveals only one Federal statute, presently in effect, granting the condemnation power to a pipeline company:

> Act of July 25, 1947 (amendment to Natural Gas Act), 15 U.S.C. sec. 717f(h). To natural gas pipeline companies holding certificates of public convenience and necessity under the Act.

During World War II, national defense needs gave rise to a temporary delegation of condemnation power:

> Act of July 30, 1941 (Cole Act), 15 U.S.C. note preceeding sec. 715. To pipeline companies, for building interstate petroleum pipelines determined by the President to be necessary for the national defense. Expired June 30, 1946.

OTHER ENERGY-RELATED DELEGATEES

Act of June 10, 1920 (Federal Power Act), 16 U.S.C. sec. 814. To power companies receiving licenses to construct hydroelectric facilities pursuant to the Act, to acquire land for dam, reservoir, and diversion structures, and related facilities.

Act of May 18, 1933 (Tennessee Valley Authority Act), 16 U.S.C. sec. 831x. To the Tennessee Valley Authority, to acquire lands and easements necessary to carry out the Act.

Public Law 96-294 (Energy Security Act), 42 U.S.C. sec. 8771(c). To the Synthetic Fuels Corp., when necessary for access to a Corporation construction site for site-related transportation, power transmission, and other services, and when necessary for a pipeline to transport synthetic fuel from a Corporation construction project to the nearest pipeline.

URBAN REDEVELOPMENT

Act of Aug. 2, 1946, 60 Stat. 790, D.C. Code secs. 5-701 through 5-719. To the District of Columbia Redevelopment Land Agency, for the assembling of real estate tracts in southwest Washington, D.C. for purposes of redevelopment.

Public Law 92-578 (Pennsylvania Avenue Development Corporation Act), 40 U.S.C. sec. 875(6). To the Pennsylvania Avenue Development Corp., for the acquisition of real property necessary or appropriate to carrying out its development plan.

Robert Meltz

Robert Meltz
Legislative Attorney
American Law Division
February 25, 1982

The **Chairman**. I appreciate your testimony this morning and I would welcome a legal analysis by, and I understand, Mr. Carruthers, you indicated that you would have that done by the Solicitors' Office

Mr. **Carruthers**. Yes I will.

[The information requested follows:]

United States Department of the Interior
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

MAY 27 1982

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

It was a pleasure to appear before the United States Senate Committee on Energy and Natural Resources on May 10, 1982, to present the Department's views on S. 1844, a bill "To Facilitate the National Distribution and Utilization of Coal."

During the hearing, you asked me about the Department's interpretation of the "preservation of State water law" provision in section 6 of S. 1844. I indicated that there is no way to predict with certainty how the courts might interpret this language, but that we felt section 6 would clearly protect State water rights. I also said I would review the issue in more detail and seek the opinion of the Solicitor. This letter is intended to amplify on my earlier statements and also convey the Solicitor's opinion on the issue.

The Associate Solicitor has informed me (memorandum enclosed) that, in his opinion, the existing language in section 6 clearly and unambiguously requires that the acquisition and use of any water by the United States, its agents, permittees, licensees, transferees, or any interstate coal pipeline distribution system for any purpose or use that may be authorized by S. 1844 would require full compliance with all applicable provisions of State substantive and procedural water law. The Solicitor's Office further concludes that neither the United States nor non-Federal entities may claim reserved water rights or exercise any rights under the Commerce Clause of the United States Constitution in derogation or contravention of State water law under the provisions of this bill. Furthermore, section 4(c)(2) of the legislation prohibits the use of the eminent domain authority to acquire water rights for any use that may be authorized pursuant to this bill.

I trust that this satisfactorily answers your concerns regarding this matter. If you have any further questions on this issue, please do not hesitate to call.

Sincerely,

Assistant Secretary - Land and
Water Resources

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

MAY 2[illegible] 1982

Memorandum

To: Assistant Secretary, Land and Water Resources

From: Associate Solicitor, Energy and Resources

Subject: Water Rights Provision of S. 1844, a Bill "To Facilitate the National Distribution and Utilization of Coal"

You requested my interpretation of the language found in Section 6 ("Preservation of State Water Law") of S. 1844, a Bill "To Facilitate the National Distribution and Utilization of Coal." It is my opinion that the language in Section 6 clearly and unambiguously requires that the acquisition and use of any water by the United States, its agents, permittees, licensees, transferees, or any interstate coal pipeline distribution system for any purpose or use that may be authorized by S. 1844 would require full compliance with all applicable provisions of state substantive and procedural water law. I furthermore conclude that neither the United States nor nonfederal entities may claim reserved water rights or exercise any rights under the Commerce Clause of the United States Constitution in derrogation or contravention of state water law under the provisions of this Bill. As a final matter, Sec. 4(c)(2) of the legislation prohibits the use of the eminent domain authority to acquire water rights for any use that may be authorized pursuant to this Bill. This provision is a significant safeguard to water rights acquired under state law beyond that contained in Section 6.

Alexander H. Good

Alexander H. Good
Associate Solicitor
Energy and Resources

The CHAIRMAN. I wonder, Mr. Bauer, if you might undertake similar work within the Department of Energy.

Mr. BAUER. We'll be pleased to do that.

The CHAIRMAN. Thank you very much.

Two of our congressional witnesses have arrived. Senator Baucus, I wonder if he might desire to take the witness stand, and Congressman Williams.

Senator Baucus, you may proceed.

STATEMENT OF HON. MAX BAUCUS, A U.S. SENATOR FROM THE STATE OF MONTANA

Senator BAUCUS. Thank you very much, Mr. Chairman.

Mr. Chairman, I appreciate the opportunity to be here with my colleague, Congressman Williams, from Montana. Both of us are very concerned about the bill that is under discussion today.

Mr. Chairman, you are considering once again an issue of vital importance to the West and the Nation as a whole. As you know, coal slurry pipelines are not a topic of light conversation in my State or yours. They are greeted with considerable apprehension. The pipelines are a threat to Western water. They are a threat to Western railroads and their employees. They are a threat to our traditional State authority. They are not energy efficient. I do not believe they will promote competition.

The Congressional Budget Office recently released a study of the energy efficiency of freight transportation. It compares the energy cost of moving freight in Btu's per ton a mile. Unit trains require 890 Btu's while coal pipelines are significantly higher, at 1,270 Btu's. I would hope this report prepared in February of this year, Mr. Chairman, would be made part of your hearing record if it has not been made so already.

The CHAIRMAN. It will be made part of the record.

Senator BAUCUS. I've examined S. 1844 with care. In some respects it is obvious that an effort has been made to make the bill more palatable. It recognizes the importance of State water law. It states a congressional position that the Commerce clause should not in any way override State water law. This is a good step, politically and environmentally. We really know very little about the effect of pipelines on Western ground water. We must not be overconfident on this score.

The bill still does not answer a fundamental question. Why should the Federal Government be granting eminent domain powers to slurry pipelines? Surely, if the pipelines are such a good idea, the States traversed by them will grant the awesome power of condemnation. This is a crucial issue in the West. If you don't think so, I suggest you hold a few hearings out there, and I guarantee the message will be delivered.

I'm also concerned that the bill really offers very little guidance to the Secretary in making his decision that a pipeline is in the national interest. The bill suggests that he should consider national needs for coal utilization and distribution. It suggests that he should consider competition and national security. He should consider the effects on the environment. That's fine, but the bill does not tell the Secretary how to weigh those factors. It just lets him make findings and then announce his decision.

Once his decision is made the bill is silent as to whether it preempts State pipeline siting authority.

I stand with many distinguished members of this committee who are concerned about the high costs of coal shipped by rail. I recently urged the House Energy and Commerce Committee to investigate rail rates. They are sometimes 70 percent of the delivered price of coal, which is an incredible position and we need to take a hard look at the way those rates are set.

I'm also a proponent of transportation competition. I do not believe in unfair competition allowing the pipeline that is not a common carrier to take the easiest part of the coal haul. Our railroads in the West are already trying to turn themselves into pipelines. In the process, they are savaging Montana grain farmers with outlandish rates and terminal consolidations. They are clogging the mail with pink slips for hundreds of rail employees. And sometimes, when they think the lights are down low enough, they even hint at their own interest in slurry pipelines. Burlington Northern, for example, recently indicated an interest in a Trans-Cascade pipeline and has now clarified its position. No slurries are in the works they tell me, at least they're not pursuing it seriously at this point. The Reagan administration has announced its opposition to Federal eminent domain for slurries.

If the residents of the West decide they want slurry pipelines, they will approve them. They will give them eminent domain authority so that they can take the people's property, and they will help build them.

We in the West do not need a Secretary of Energy, not James Schlesinger, not James Edwards, not even Santa Claus, to make that decision.

Thank you, Mr. Chairman, for the opportunity to testify.

[The study submitted by Senator Baucus follows:]

ENERGY USE IN FREIGHT TRANSPORTATION

Staff Working Paper

February 1982

CONGRESSIONAL BUDGET OFFICE
U.S. CONGRESS
WASHINGTON, D.C.

PREFACE

The use of energy by the major modes of freight transportation has become of increasing concern in setting transportation policy. This report complements previous Congressional Budget Office (CBO) studies of the relative energy efficiency of the major modes of urban passenger transport and of intercity passenger transport. It was prepared at the request of the Commerce, Transportation and Tourism Subcommittee of the House Committee on Energy and Commerce. In keeping with CBO's mandate to provide objective and impartial analysis, the study offers no recommendations.

Richard R. Mudge of CBO's Natural Resources and Commerce Division prepared the study under the supervision of Damian J. Kulash and David L. Bodde. Valuable comments were received from representatives of the Association of American Railroads, the American Trucking Association, the Coal Slurry Pipeline Association, and the National Waterways Conference, and from the following individuals: Axel Rose of Oak Ridge National Laboratory, Edward Gregory of the Department of Energy, John Pollard of the Transportation Systems Center, and Samuel E. Eastman. Other suggestions came from Peter Tarpgaard, Allen Kraus, and Richard Weissbrod of CBO. Francis Pierce edited the manuscript and Kathryn Quattrone prepared the paper for publication with help from Paula Mills.

Alice M. Rivlin
Director

February 1982

SUMMARY

This report examines the relative energy efficiency of the different modes of freight transportation. It finds that in terms of energy per ton-mile, oil pipelines are easily the most efficient of the modes of transportation considered. Inland barges rank second, although for some uses railroads are of comparable efficiency. Trucks use more energy than railroads, and cargo planes are at the bottom of the efficiency range (see Summary Table). But these simplified comparisons must be modified in several ways.

Modifying Factors

Oil pipelines use only 500 BTUs (British Thermal Units) per ton-mile (280 ton-miles per gallon of diesel fuel), but they are limited by their very specialized function. The efficiency of inland barges (990 BTUs per ton-mile or 140 ton-miles per gallon on average), is likewise offset by the roundaboutness or circuity of most rivers. Also, significant amounts of energy may be required to bring cargo to a waterway system: grain and other farm products are sometimes trucked 200 miles to a river, increasing energy use per ton-mile by 50 percent or more.

The efficiency of rail transportation varies considerably depending on the commodity and the level of service provided; at one extreme, unit trains designed to carry only coal typically require less than 900 BTUs per ton-mile of cargo (155 ton-miles per gallon), while at the other extreme high-speed short trailer-on-flat-car (TOFC) trains use about 2,000 BTUs per ton-mile of cargo (68 ton-miles per gallon).

Intercity trucks require on average about 3,400 BTUs per ton-mile of cargo (41 ton-miles per gallon), twice the rail average and 1.7 times that for rail TOFC. It is not surprising that trucks require more energy since they provide a generally higher level of service than rail.

An even higher level of service, and hence greater energy need, is characteristic of air freight. In planes devoted to air freight, over 28,000 BTUs per ton-mile of cargo may be required (5 ton-miles per gallon), although freight carried in the belly of a passenger plane may require only 3,900 BTUs per ton-mile of cargo (35 ton-miles per gallon).

A specialized new mode of freight transportation is the coal slurry pipeline; this appears to require about 1,270 BTUs per ton-mile of coal--although this conclusion is based largely on engineering studies.

SUMMARY TABLE 1. ESTIMATES OF TYPICAL FREIGHT ENERGY EFFICIENCY (In BTUs per ton-mile of cargo)

Mode	Modal Energy a/
Rail - Overall	1,720
TOFC b/	2,040
Unit coal train	890
Truck	
Average intercity	3,420
Barge - Overall	990
Upstream	1,280
Downstream	620
Air	
All-cargo plane	28,610
Belly freight	3,900
Oil Pipeline	500
Coal Slurry Pipeline	1,270

a/ Combines propulsion energy, maintenance energy, vehicle manufacturing energy, construction energy, and the effect of circuity, as well as refinery losses and the energy used for empty movements and for the non-cargo weight of vehicles. One gallon of diesel fuel contains on the average 138,700 BTUs (British Thermal Units) of energy, and a gallon of gasoline 125,000 BTUs. A ton-mile represents the movement of one ton a distance of one mile.

b/ Trailer on flat car.

Components of Energy Use

These energy estimates include all of the energy consumed in transportation--that is, not only the energy used in propelling a vehicle but also the energy used in manufacturing and maintaining it, and in building the guideway over which it moves. In addition, they make allowance for "circuity"--the extent to which a vehicle's route departs from a straight line. The amounts of energy used for propulsion and for circuity are by far the most important, accounting between them for more than 70 percent of the energy used by most modes of transportation.

For rail and barge transportation, propulsion consumes between 35 and 50 percent of all energy used. For intercity trucks, propulsion accounts for about 60 percent, and for airlines about 90 percent, of total energy use. Circuity requires about 45 percent of barge energy, 35 percent of rail energy, and 20 percent of intercity truck energy, the differences corresponding largely to the extent of each mode's transport network. On the other hand, circuity accounts for less than 10 percent of energy use by airlines and pipelines. With a few exceptions, none of the other components of energy use--vehicle manufacture, guideway construction, and maintenance--accounts for more than 10 percent of total energy use.

Other Factors

Factors such as speed, terrain, and type of cargo have a major influence on energy use. For example, a train carrying only coal is much more efficient per ton-mile cargo moved than a mixed train carrying various manufactured goods in boxcars, many of them empty. Similarly, upstream barge traffic requires more energy than barges moving downstream.

Finally, energy is only one of the concerns that enter into the setting of transportation policy. Of more importance, usually, are the total costs of each mode of transportation, the service qualities it possesses, the effects it may be expected to have on regional development, and the way in which it is financed.

CHAPTER I. INTRODUCTION

Increasingly, debate in the Congress is shaped by concern over energy. This is particularly true for transportation, which accounts for a quarter of the nation's energy use and half of its petroleum use. The potential for energy savings has played a part in the debate over truck and rail deregulation, user fees on the inland waterway system, and federal aid to railroads, among other examples.

There is much disagreement as to the relative energy efficiency of different modes of transportation. Some spokesmen maintain that railroads offer the most energy-efficient means of transporting freight, and that in this they are four times as efficient as trucks. Others reply that barges on the inland waterways far exceed railroads in efficiency. Still others point to the recent improvements in motor vehicle economy and also argue that trucks provide a higher level of service than other modes. The debate is difficult to resolve because the parties use conflicting data and different analytical approaches.

This paper examines the available evidence as to energy efficiency for each mode of transportation in a systematic way in an effort to provide a basis for informed discussion. The comparisons are limited to the energy requirements of intercity freight transportation. 1/ (Local freight movement is not considered because Congressional actions focus on interstate commerce, and also because reliable data are lacking.) Of necessity, the emphasis is on average or typical conditions, and the results will have to be modified to fit differing circumstances. For example, in special geographical conditions, such as mountainous terrain, energy requirements may differ considerably from the average. Also, some of the longer-term considerations such as the amount of energy used in vehicle manufacture or guideway construction will not apply to analyses concerned with the short term.

1/ Freight transportation uses 10 percent of total energy and over 20 percent of the nation's petroleum. In the future these fractions are likely to increase as improvements in automobile fuel economy outstrip foreseeable improvements in the various modes of freight transportation.

It is hardly necessary to add that energy is not the only criterion to be considered in setting transportation policy. In most circumstances it is probably not even the most important criterion. Others include cost and quality of service, equity, the needs of regional development, and the concern for environmental pollution.

Chapter II of the report describes the three measures of energy use that form the basic analytical framework. Chapter III presents the results of the analysis and discusses some of the policy implications. Appendix A provides a detailed description of the data. Appendix B lists the major sources.

CHAPTER II. ANALYTICAL APPROACH

The energy efficiency of different modes of freight transportation may be compared on the basis of energy used per ton-mile of cargo carried. This is done by estimating the energy used (measured in British Thermal Units--BTUs) 1/ and dividing it by the tonnage carried times the route miles covered.

$$\text{Energy Efficiency} = \frac{\text{Total Energy Used (BTUs)}}{\text{Tons x Miles}}$$

The principal problem is that of estimating the total amounts of energy used. In comparing the long-term energy efficiency of, say, railroads and trucks, it is necessary to include not only the energy used in propelling the vehicles but that consumed in manufacturing them and in building the guideways (tracks and highways) on which they run, as well as in maintaining each system. The same holds for other modes of transportation such as canals, pipelines, and airlines.

In this paper the estimation of energy efficiency is carried out in three steps. First, operating energy is calculated--the energy required for vehicle propulsion divided by the average load. Estimates of average load must be adjusted for the amount of travel with no load (called empty backhauls). Energy losses during the refining process are incorporated as well.

The second step is to estimate line-haul energy. This adds to operating energy the energy used to maintain vehicles and guideways, the energy required to construct the guideways, and the energy used in vehicle manufacture. Estimates must also be made of the length of life of vehicles and guideways in order to allocate construction and manufacturing energy over their effective lives.

Third, the estimate of line-haul energy is modified to take account of the additional energy used in circuity or roundaboutness, and the energy used in access. Circuity is the amount of excess or unproductive travel used to move goods from one point to another, as compared with the theoretical

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1/ One gallon of diesel fuel contains 138,700 BTUs, and a gallon of gasoline 125,000 BTUs.

minimum distance or great-circle route. Access energy is the amount of energy required to move the cargo to and from the system. The resulting measure (line-haul energy adjusted for circuity and access) is termed "modal energy." It is the most comprehensive measure of energy use in transportation. 2/ The analytical framework may be depicted as follows:

Basic Energy Components	Measures of Energy Use		
Propulsion energy per ton-mile	Operating energy	Line-haul energy	Modal energy
Terminal and maintenance energy			
Guideway construction energy			
Vehicle manufacturing energy			
Energy used in access			
Circuity			

Many analyses of transportation energy efficiency consider only operating energy and fail to include the energy used in manufacture, construction, maintenance, circuity, and access. 3/

2/ A fuller description of this approach can be found in the Congressional Budget Office Background Paper, Urban Transportation and Energy: The Potential Savings of Different Modes (December 1977), Chapter II.

3/ For example, see Transportation Research Board, National Cooperative Highway Research Program, Energy Effects, Efficiencies, and Prospects for Various Modes of Transportation (1977).

GENERAL MEASUREMENT PROBLEMS

Freight transportation modes cannot all be analyzed in exactly the same way. One reason is that there are differences in their typical cargos. One of the more significant variables is cargo density--a ton of television sets requires five to six times as much space as a ton of coal, for example. 4/ Many manufactured goods fill the space available before reaching the weight limit for the vehicle. This is particularly common with trucks, which often fill up before reaching their maximum allowable weight.

Further, different commodities have different handling requirements. Manufactured goods must be handled with greater care than bulk commodities such as coal or grain. Consequently, specialized equipment and operating procedures are used for some cargos, and this is reflected in energy requirements. Coal is often delivered directly to its final destination with the aid of highly automated rail or barge equipment. Many manufactured goods, in contrast, are handled through warehouses and delivered by local delivery trucks, a service that is less energy-efficient than full truckload service directly to the consignee. Further, high-value goods, such as most manufactured items, often require fast and particularly reliable service, resulting in greater energy use than would otherwise be the case. For example, railroads operate TOFC (trailer-on-flat-car) trains at much higher speeds than normal, with much greater use of energy per ton of cargo. The importance attached to speed also figures in the greater energy requirements for air transport as compared with other modes.

The analysis of freight energy requirements is also hindered by limitations of data. Virtually all freight service is provided by the private sector, and large segments of it are relatively unregulated. The number of operating companies is quite large, except for the airlines, thus greatly complicating data collection and making it difficult to reach a representative estimate of energy efficiency.

Given the wide variation in the characteristics of different freight modes, the requirements of particular commodities, and the influence of geography, there is no single, perfect summary measure of energy efficiency. Although cargo ton-miles (also called net ton-miles) make by far

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4/ Edward K. Morlok, "An Engineering Analysis and Comparison of Railroad and Truck Line-Haul Work (Energy) Requirements," presented at the Transportation Research Board Fifty-Fifth Annual Meeting, January 1976.

the most useful measure of the output of freight transportation, they give greater than average weight to dense, bulk commodities and to longer hauls. Some analysts have argued for the use of a space-related measure, such as trailer miles. 5/ This might be particularly useful for comparing truck energy use with that of rail TOFC (trailers on flat cars) or COFC (containers on frame cars). It would avoid comparing the energy efficiency of all rail service including bulk goods with the energy efficiency of trucks, which carry predominantly manufactured goods. Of course, net ton-miles could still be used to compare similar services, such as rail TOFC versus truck.

Some analysts argue that any energy measure based on tonnage is biased since it does not reflect the different levels of service provided by each mode. Some have suggested as an alternative the amount of energy used per dollar of transportation expenditure or per dollar value of cargo. 6/ Again, their objection can be met by disaggregating total energy into the energy needed for bulk commodities and that needed for manufactured goods, together with an overall modal average. Such disaggregation is particularly important for railroads, since they carry both bulk and manufactured goods.

A similar suggestion is that the analysis be limited to movements of comparable commodities over comparable distances. 7/ The difficulty in this is that some modes cannot be compared in this way. Clearly, transcontinental rail movements cannot be compared with transcontinental barge movements.

Caution must therefore be used in interpreting the results of any study of average or overall energy efficiency. The results may be quite useful for debate over national policy, but may also be quite misleading if applied to particular circumstances.

5/ American Trucking Association, Inc., "Debunking the Rail Energy Efficiency Myth" (January 1978).

6/ Samual Eastman, "Energy Intensiveness of Intercity Motor Common Carriage of General Freight: Its Measurement and the Effect of Federal Regulations," in Proceedings of the Transportation Research Forum (1976), p. 17. Eastman believes that this approach would show trucks as less energy-intensive than railroads.

7/ Samuel Eastman, "Circuity and the Energy Intensiveness of Inland Waterway and Rail Freight Transportation Systems: A Progress Report," paper presented to the Maritime Transportation Research Board, June 1978.

CHAPTER III. ESTIMATED ENERGY EFFICIENCIES OF FREIGHT TRANSPORTATION MODES

Using the analytical framework from Chapter II, this chapter presents representative estimates for the principal components of energy use: propulsion energy, vehicle manufacturing energy, construction energy, maintenance energy, and circuity. 1/ Given the wide range of existing estimates for the energy use of each mode of transportation, it was necessary to use judgment in the selection of data. Rather than averaging various estimates together, typical or representative values were selected for each mode, taking into account the character of each source, including its apparent analytical quality. There is bound to be some disagreement over the estimates used. The analytical framework is straightforward, however, and readers can use their own judgment if they prefer to select different estimates.

CALCULATION OF ENERGY EFFICIENCY

Table 1 presents estimates of the basic components of energy use for each of the six major modes of freight transportation. These estimates are discussed in detail in Appendix A. Several estimates are provided for rail, water, and air transportation. The rail estimates include an overall modal average and separate estimates for TOFC service and coal unit trains. TOFC (trailers on flat cars) represents the highest quality rail service, and also the most energy-intensive, while coal unit trains represent probably the most energy-efficient form of rail service, at least on a BTU-per-net-ton-mile basis. The barge estimates include, in addition to a modal average, estimates for upstream and downstream traffic in order to reflect obvious differences. Since air freight energy use varies greatly depending on whether all-cargo planes or combined passenger-freight planes are used, estimates for both are given.

Table 2 compares the relative importance of each component of energy use. In general, maintenance energy and the energy used in vehicle manufacturing and guideway construction are small relative to propulsion energy and the effect of circuity. For most modes, propulsion energy and circuity together account for more than three times the sum of the other

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1/ No attempt was made to estimate access energy.

TABLE 1. ESTIMATES OF BASIC COMPONENTS OF ENERGY USE FOR SIX MODES OF FREIGHT TRANSPORTATION (In BTUs per net ton-mile)

Mode	Propulsion Energy	Vehicle Manufacturing Energy	Construction Energy	Maintenance Energy	Circuity
Rail - Overall	660	90	200	180	1.52
TOFC	1,000	80	200	140	1.44
Unit coal train	370	60	100	60	1.51
Truck					
Average intercity	2,100	100	300	300	1.22
Barge - Overall	420	40	50	30	1.83
Upstream	580	40	50	30	1.83
Downstream	220	40	50	30	1.83
Air					
All-cargo plane	26,250	150	100	750	1.05
Belly freight	3,570	20	20	100	1.05
Oil Pipeline	325	0	25	100	1.10
Coal Slurry Pipeline	1,000	0	50	100	1.10

SOURCE: Tables A-8, A-10, A-12, A-14, and A-16.

energy components. The fact that the others are relatively small helps to offset the much greater margin for error associated with estimating their magnitude.

Operating Energy

Table 3 combines the energy components into three summary measures of energy efficiency. The first, operating energy, is simply propulsion energy adjusted for refinery losses and corresponds to what is usually meant

TABLE 2. RELATIVE IMPORTANCE OF BASIC COMPONENTS OF ENERGY USE FOR SIX MODES OF FREIGHT TRANSPORTATION (In percent of total modal energy)

Mode	Propulsion Energy	Vehicle Manufacturing Energy	Construction Energy	Maintenance Energy	Circuity
Rail - Overall	38	5	12	10	34
TOFC	49	4	10	7	30
Unit coal train	42	7	11	7	34
Truck					
Average intercity	61	3	9	9	18
Barge - Overall	42	4	5	3	45
Upstream	45	3	4	2	45
Downstream	35	6	8	5	45
Air					
All-cargo plane	92	1	a/	3	5
Belly freight	92	1	1	3	5
Oil Pipeline	65	0	5	20	10
Coal Slurry Pipeline	79	0	4	8	9

NOTE: Totals may not add because of rounding.

a/ Less than 0.5 percent.

by the phrase "energy intensity." Measured by operating energy alone, the oil pipeline is the most efficient mode of freight transportation, followed by barge, rail, coal slurry pipeline, intercity truck, and airplane. Except perhaps for the coal slurry pipeline, where data are limited, this rank ordering of modes follows that of most other studies. It is notable that those modes with the greatest operating energy requirements (air and truck) also provide the highest speed and generally highest quality of service.

TABLE 3. SUMMARY MEASURES OF ENERGY EFFICIENCY FOR SIX MODES OF FREIGHT TRANSPORTATION (In BTUs per net ton-mile)

Mode	Operating Energy a/	Line-Haul Energy b/	Modal Energy c/
Rail - Overall	660	1,130	1,720
TOFC	1,000	1,420	2,040
Unit coal train	370	590	890
Truck			
Average intercity	2,100	2,800	3,420
Barge - Overall	420	540	990
Upstream	580	700	1,280
Downstream	220	340	620
Air			
All-cargo plane	26,250	27,250	28,610
Belly freight	3,570	3,710	3,900
Oil Pipeline	325	450	500
Coal Slurry Pipeline	1,000	1,150	1,270

a/ Propulsion energy including refinery losses.

b/ Combines operating energy with maintenance energy, vehicle manufacturing energy, and construction energy.

c/ Adjusts line-haul energy for circuity, but not for access energy.

Among the more interesting modal comparisons: trucks require over three times as much operating energy per net ton-mile as do railroads as a whole, and over twice as much as the more directly competitive TOFC service. Railroads in turn require about 60 percent more operating energy per net ton-mile than do barges, although the more directly competitive rail services such as coal unit trains are, on average, probably slightly more energy-efficient. But operating energy includes less than half the total energy requirements for some modes--barge and rail, for example--and is therefore not a good basis for long-term comparisons.

Line-Haul Energy

The second summary measure, called line-haul energy, adds to operating energy the energy required for maintenance, vehicle manufacturing, and the construction of guideways. When energy efficiency is measured in terms of line-haul energy, the transportation modes rank in the same order as with the operating energy measure, although the values are higher (Table 3). The differences are greatest for air freight (an increase of 1,000 BTUs per net ton-mile) and trucks (an increase of 700 BTUs per net ton-mile). The biggest percentage increase (about 70 percent), is for the rail mode--largely because propulsion energy requirements are relatively low for railroads.

While there is no shift in the overall ranking of the modes using the line-haul energy measure, some of the differences between them are smaller. Thus the coal slurry pipeline, which in terms of operating energy was about 60 percent less efficient than rail, is now only slightly less efficient. Also, within the rail mode, unit coal trains now appear slightly less energy-efficient than barges overall.

Modal Energy

The third summary measure, modal energy, is the most comprehensive since it adjusts line-haul energy to take account of the extra energy required for circuity. Circuity is measured as a ratio of the distance actually traveled to the great-circle distance. This has a significant influence on overall energy efficiency. Barges, with the largest circuity (1.83), are affected the most, followed by rail (1.52).

Taking circuity into account results in a slightly different ranking of the transportation modes with oil pipeline first, followed by barge, coal slurry, rail, truck, and air. Coal slurry now appears more efficient than rail movement overall, though less so than coal unit trains--the most directly competitive rail service. The importance of circuity is clearly seen in its effect on the energy efficiency of the barge and rail modes: barge energy needs increase by 450 BTUs, more than the operating energy used, while rail energy needs increase by 590 BTUs, only slightly less than the operating energy used. The biggest absolute increase (1,360 BTUs) is for all-cargo planes, because of the very large propulsion energy required for that mode.

Modal energy also includes energy used in gaining access to or from line-haul travel. The estimates shown in Table 3 do not include access energy, for lack of data. This introduces serious distortion for some modes. Most important, the inland barge industry often draws traffic over a distance of 200 or 300 miles from a navigable waterway. This has been particularly true in recent years as both the Rock Island and the Chicago, Milwaukee, St. Paul and Pacific railroads have deteriorated, forcing many farmers to truck their grain to the river. If truck access accounts for as much as one-third of the total movement by barge, it is enough to reduce average barge energy efficiency to roughly that of rail. This may also increase the circuity component for barge movement. On the other hand, the fact that most barge grain movements are downstream, where barge is a very efficient hauler, works to counteract some of these effects. Access energy requirements are also likely to be important for rail TOFC and air freight, and to a lesser extent for truck.

Rail vs. Truck. The rail mode is thought by some to have a four-to-one edge over the truck mode in energy efficiency. Table 3 shows that while rail is clearly more energy-efficient than truck, its lead is about two-to-one overall (1,720 BTUs per net ton-mile versus 3,420 for truck) and closer to 1.7-to-one for TOFC, which competes most directly with truck. This difference between modes varies considerably from commodity to commodity. For certain bulk commodities--coal, for example--rail may be as much as six times as efficient as truck, while for certain types of manufactured goods--such as electrical machinery--there is very little difference between the modes. 2/

Rail vs. Barge. Overall, the inland barge is a more energy-efficient mode than rail. The typical coal unit train appears, however, to be more energy-efficient than overall barge transport (but less efficient than downstream barge transport). For other bulk commodities the relative energy efficiency depends greatly on the commodity and the direction of movement. Since most petroleum products, for example, travel in an upstream direction, movement by rail is probably more energy-efficient for them. Grain, on the other hand, is more likely to travel downstream, and thus would use less energy on barges. If a commodity has to be transported a significant distance to or from the waterway, this may offset the advantage of barges.

2/ Axel Rose, Energy Intensity and Related Parameters of Selected Transportation Modes: Freight Movements, Oak Ridge National Laboratories (June 1979). See Tables 5.11 and 6.5 for estimated commodity breakdowns.

Air vs. Truck. Freight transport in the belly of passenger planes is only about 15 percent more energy-intensive than truck traffic, even though service quality is higher. The space available for belly freight is quite limited, however, although increased use of wide-body planes should make more belly space available. All-cargo planes are the least energy-efficient mode of transport, requiring more than eight times as much energy as trucks. The difference would probably appear even greater if data on access energy were available, since most metropolitan areas have many truck terminals but rarely more than one air freight terminal.

SHORT-TERM VERSUS LONG-TERM ENERGY USE

In any discussion of alternative energy policies, it is important to distinguish between the short term and the long term. Short-term comparisons of energy efficiency need not give much weight to the costs of constructing new guideways for vehicles. This is particularly true for a country such as the United States with a well-developed transportation infrastructure. Thus, any analysis of the likely short-term energy effects of a particular policy change should exclude construction energy. Table 4 adjusts the modal energy estimate in Table 3 to exclude construction energy. Also shown in Table 4 is the energy required for propulsion and the related effects of circuity--excluding all the "overhead" energy of vehicle manufacturing, guideway construction, and maintenance. Except for oil and coal slurry pipeline, almost all the energy used for propulsion and circuity is derived from petroleum.

Clearly, there are potential energy savings from switching traffic from one mode to a more efficient one—as, for example, from air to truck or from rail to barge. Table 5 shows the hypothetical savings if 10 percent of the traffic currently carried by each mode were switched to the next most efficient mode. Changes of this magnitude are unlikely to occur without drastic changes in current policy. In any case, the potential savings are modest, equal to a total of 68,000 barrels of oil per day at a time when U.S. energy consumption totals 36 million barrels per day.

CONCLUSIONS

Of the major modes of domestic freight transportation, oil pipelines are, on average, the most energy-efficient, followed by barges, coal slurry pipelines, railroads, trucks, and air freight. Such generalizations can be misleading, however, since they conceal wide variations among commodities hauled, levels of service offered, and specific geographic circumstances.

TABLE 4. ESTIMATES OF ENERGY USE OVER THE SHORT TERM FOR SIX MODES OF FREIGHT TRANSPORTATION (In BTUs per net ton-mile)

Mode	Propulsion Energy and Circuity Alone a/	Modal Energy Excluding Construction Energy
Rail - Overall	1,000	1,410
TOFC	1,440	1,760
Unit coal train	560	740
Truck		
Average intercity	2,560	3,050
Barge - Overall	770	900
Upstream	1,060	1,190
Downstream	400	530
Air		
All-cargo plane	27,560	28,510
Belly freight	3,750	3,870
Oil Pipeline	360	470
Coal Slurry Pipeline	1,100	1,220

a/ Excludes energy used for vehicle manufacture, guideway construction, and maintenance.

For example, oil pipelines and coal slurry pipelines are both specialized modes of transportation, each designed to move only one commodity. The relative efficiency of oil pipelines is useful in analyzing alternative ways of moving petroleum (barges and tankers, for example), but has little relevance for freight transportation in general. Similarly, while barges, on average, are more energy-efficient than railroads, the gap narrows when comparison is restricted to the bulk commodities that barges carry almost exclusively. Coal unit trains, for example, are roughly comparable to barges in energy efficiency.

TABLE 5. POTENTIAL ENERGY SAVINGS FROM SWITCHING FREIGHT TRAFFIC TO MORE EFFICIENT MODES

		Savings From Switching 10 Percent of Traffic to Next Most Efficient Mode	
Mode	1980 Intercity Traffic (In billions of ton-miles) a/	Total Savings (In thousands of barrels of oil equivalent per day)	Savings per Ton-Mile (In BTUs) b/
Oil Pipeline	575	N/A	N/A
Barge c/	307	6	430
Rail	921	22	510
Truck d/	565	34	1,290
Air e/	5	6	25,460

N/A = Not Applicable.

a/ Transportation Association of America.

b/ Based on estimates in Table 4.

c/ Traffic on rivers and canals. Excludes 113 billion ton-miles of domestic freight on the Great Lakes.

d/ Assumed to switch to TOFC.

e/ Assumed to switch from all-cargo plane.

This analysis should provide a useful basis for weighing alternative national policies in the field of transportation. It should also be applicable to more limited problems. For example, the effects of railroad deregulation on energy use could be estimated in terms of reduced circuity, changes in average load, and the amount of traffic attracted from other modes. To estimate the energy effects of a specific project such as the Tennessee-Tombigbee Waterway, however, would require modification of the energy estimates in this report.

APPENDIXES

APPENDIX A. DESCRIPTION OF INPUT DATA

This appendix describes the data used in estimating the basic components of energy use given in Chapter III. Each component--propulsion energy, vehicle manufacturing energy, guideway construction energy, maintenance energy, access energy, and circuity--is discussed separately, and typical or representative values are selected for each mode of transportation. These are used in Chapter III to calculate the measures of overall energy efficiency for each mode.

PROPULSION ENERGY

Propulsion energy is the most important single component of energy consumption. It represents between 40 percent (for barges and railroads) and 90 percent (for air cargo) of the total energy required to transport goods.

Railroads

The average amount of energy used in rail propulsion varies widely. It is lowest for unit trains with 100 or more similar, heavily loaded cars on an uninterrupted long-distance journey. It is highest for TOFC (trailer-on-flatcar) trains carrying lower-density cargos, usually manufactured goods, for shorter distances at much higher speeds and on shorter trains. Between these two extremes is the more typical general-purpose train consisting of boxcars, hopper cars, or gondolas.

Table A-1 summarizes recent estimates of railroad freight propulsion energy use in terms of BTUs per ton-mile of cargo. The first group of estimates show averages for all rail freight in either the United States or Canada for recent years. The U. S. figures are all based on data submitted to the Interstate Commerce Commission (ICC) by U. S. Class I railroads (those with annual revenues greater than $50 million). Since they all derive from the same source, there is very little difference among most of the estimates, which range between 630 and 690 BTUs per ton-mile of cargo. They have not changed much in recent years, the average fluctuating

TABLE A-1. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR RAILROADS

Source a/	BTUs Per Ton-Mile b/	Comments
Rose	630	Per revenue ton-mile, 1979 preliminary estimate
	670	Per revenue ton-mile, 1977, ICC data
	274	Per gross ton-mile, 1977, ICC data
Pollard	664	1977
Leilich	687	1972
CACI	594	Estimated for 1975
DelCan	548	1976, Canada
IBI Group	1,200	General freight, Canada
	500	Bulk commodities, Canada
	289	Per gross ton-mile, 1975 actual for Canada
USRA	262	Conrail, 1977, per gross ton-mile
	594	Conrail, 1977, all traffic
	319	Conrail, 1977, unit trains
	1,272	Conrail, 1977, TOFC
	470	Conrail, 1977, local service
	613	Conrail, 1977, road service
Sebald	515	1971, area served by Mississippi River and Gulf Intracoastal Waterway

(Continued)

TABLE A-1. (Continued)

Source a/	BTUs Per Ton-Mile b/	Comments
Office of Technology Assessment	390	Weighted average for four proposed coal unit trains, range = 340-580
Western Railroad Association	222	Coal unit train
Zucchetto	400	Coal unit train from Colstrip, Wyoming to St. Paul, Minnesota
Reebie Associates	1,205	Portland-Los Angeles, door-to-door, 1971
	1,723	TOFC; Portland-Los Angeles, door-to-door, 1971
	1,358-2,905	Advanced TOFC, Portland-Los Angeles, door-to-door
Iowa DOT	1,500	10 car train, ½ TOFC, 50 mph, no grade
	4,100	10 car train, ½ TOFC, 50 mph, 1 percent grade

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a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise. Gross ton-miles include the weight of cars and locomotives, and empty backhauls.

between 630 and 710 BTUs per net ton-mile. 1/ ICC data show about 275 BTUs per gross ton-mile (including the weight of cars and locomotives). The two Canadian estimates are similar to those for the United States.

A comparison of energy used per gross ton-mile and ton-mile of cargo indicates that only about 40 percent of the load moved by railroads is actual cargo, the remaining 60 percent representing dead weight due to empty backhauls and the weight of the freight cars and locomotives themselves. Some railroads are experimenting with lighter equipment and new designs. For example, the Santa Fe claims that its lightweight "Ten Pack" TOFC cars reduce energy use by 10 percent. The Bi-Modal (railroad/highway) car developed by Reebie Associates promises even greater energy savings.

Empty backhauls are a very significant factor in reducing the inherent efficiency of railroads. (Wind resistance both on the locomotive and between cars is also important, particularly for TOFC and COFC.) The ICC estimates that, on average, a rail car travels 79 miles empty for every 100 miles it travels with a load (an empty/loaded ratio of 0.79). 2/ There is some variation around this average, and certain specialized types of cars travel more miles empty than full--covered hopper cars and tank cars, for example. Since the typical rail car weighs between 60,000 and 65,000 pounds, considerable energy is required just to move an empty car. Some of these empty car miles represent inefficient use of resources, while others merely reflect the inherent characteristics of the railroad business. For example, most unit trains (devoted to hauling a particular commodity such as coal, usually between the same origin and destination), travel as many miles empty as they do loaded. Empty backhauls are a striking illustration of the difference between technical efficiency and practical efficiency.

The lower part of Table A-1 contains estimates of propulsion energy for specific railroads, regions, or types of movement. These indicate the considerable variability underlying the modal averages shown in the upper

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1/ Axel B. Rose, Energy Intensity and Related Parameters of Selected Transportation Modes: Freight Movements, Oak Ridge National Laboratory for U.S. Department of Energy, Office of Conservation and Solar Applications (June 1979), pp. 5-12. Rose, in a personal communication, reports the 630 BTU figure as a preliminary estimate for 1979.

2/ Interstate Commerce Commission, Bureau of Accounts, Ratio of Empty to Loaded Freight Car-Miles by Type of Car and Performance Factors for Way, Through and All Trains Combined - 1972 (December 1973), Statement No. 1S2-72, p. 10.

part of the table. For example, Conrail's overall energy efficiency per ton-mile of cargo is estimated to be somewhat higher than the rail industry average (594 BTUs as against 670 BTUs) although there is little difference per gross ton-mile (262 BTUs as against 274 BTUs). The several estimates of energy requirements for unit coal trains are all significantly less than the average for all traffic (222-400 BTUs versus 630-670 BTUs). In contrast, the estimates for TOFC traffic are substantially greater than the overall average. The estimates prepared by Reebie Associates for traffic between Portland and Los Angeles include access energy--the energy used in moving the cargo to and from the railroad—and are thus not fully comparable with the other estimates in the table.

Most of the rail propulsion energy estimates in Table A-1 are based on aggregate data, or on engineering projections. None are measurements of actual fuel use under controlled conditions. Such controlled experiments are difficult to perform, since measurement of locomotive fuel use requires either cumbersome before-and-after comparisons of the fuel consumed or the installation of a temporary fuel gauge. Moreover, freight cars are often added to or removed from a train at intermediate points, making it difficult to estimate the actual load carried.

In recent years, some railroads have made field tests of fuel use under operating conditions. Table A-2 summarizes a number of the results. Two general conclusions are apparent.

First, except for branch-line operations as measured by the Missouri Pacific Railroad (see the first line of Table A-2), energy use increases with the speed and quality of service provided. High-speed, high-priority TOFC and COFC trains require significantly more energy per ton-mile of cargo than does the typical freight (boxcar) train, which in turn requires significantly more energy per ton-mile of cargo than do trains carrying bulk commodities, such as coal unit trains. These results appear to confirm the more aggregative estimates presented in Table A-1. With one or two exceptions, most of the boxcar and mixed freight trains are close to the average for rail freight as a whole (650-700 BTUs per ton-mile of cargo). TOFC service tends to be 50 percent or more above this while coal unit trains are about half the average--both of these results being in line with the estimates of Table A-1.

Second, the energy required per ton-mile of cargo increases directly with the horsepower per gross ton-mile. The extra horsepower is needed to provide high-speed service for higher-value movements such as with TOFC or COFC. At the other extreme, unit trains hauling bulk commodities

TABLE A-2. FIELD MEASUREMENTS OF RAIL FREIGHT PROPULSION ENERGY USE

Railroad	Car Type	BTUs per Gross Trailing Ton-Mile	BTUs per Ton-Mile of Cargo	Number of Cars per Train	Horsepower per Gross Trailing Ton	Train-Miles in Sample
Missouri Pacific-1974 a/	Box	510	1,445	10	8.6	964
Burlington Northern-1975 b/	TOFC	326	895	27	6.0	19,528
Burlington Northern-1976 c/	Mixed	314	644	44	4.2	9,220
Southern Pacific-1975 d/	Box	145	309	125	0.9	1,148
	TOFC	232	766	39	2.6	574
	Mixed	206	672	76	1.5	574
Santa Fe-1976 e/	TOFC	316	1,372	56	3.7	6,853
	Box	281	709	63	3.2	1,747
	Mixed	234	638	69	3.2	1,604
Illinois Central Gulf-1976	TOFC f/	400	970	32	5.4	3,222
	Box g/	198	521	108	1.6	1,945
	COFC h/	255	731	72	2.6	1,052
	Mixed	314	917	82	3.0	405
Union Pacific i/	TOFC	423	1,012	41	5.7	3,038
Burlington Northern j/	Coal Unit Train	158	256	111	0.8 l/	1,264
Boston and Maine k/	Coal Unit Train	254	412	91	1.0 l/	414
Canadian National-1974 m/	Box	189	329	92	1.2	6,666

(Continued)

TABLE A-2. (Continued)

Railroad	Car Type	BTUs per Gross Trailing Ton-Mile	BTUs per Ton-Mile of Cargo	Number of Cars per Train	Horsepower per Gross Trailing Ton	Train-Miles in Sample
Milwaukee Road						
1979 n/	TOFC	295	850	23	N/A	2,472

SOURCE: All except last two lines, Hopkins and Newfell, Railroads and the Environment: Estimation of Fuel Consumption in Rail Transportation, vol. II, U.S. Department of Transportation, Transportation Systems Center (September 1977).

a/ Six round trips over 87-mile branch line in Arkansas and Louisiana.

b/ Runs between Chicago and Seattle, 2,179 total miles broken into two segments at Minot, North Dakota. Two-thirds of measurements were for Chicago-Minot segment.

c/ Ten trips between Chicago and Minot, N. D.

d/ A total of eight trains over 287-mile route in Central Valley of California.

e/ Three round trips between Kansas City and Los Angeles or Barstow, California.

f/ Two round trips between Chicago and New Orleans.

g/ Round trip between Chicago and New Orleans plus two short segments.

h/ Round trip between Chicago and Council Bluffs, Iowa.

i/ Round trip between North Platte, Neb., and Los Angeles.

j/ Round trip from Lincoln, Neb. to Metropolis, Ill.; net vertical drop of 700 feet.

k/ Round trip from Mechanicsville, N. Y. to Bow, N. H.

l/ Horsepower per gross trailing weight ratio refers to loaded portion of trip only.

m/ Ten round trips between Montreal and Toronto. Source: DelCan, "A Comparison of Modal Energy Consumption in Intercity Freight."

n/ Six trips of Sprint TOFC train between Chicago and Minneapolis/St. Paul. Includes operations in railroad TOFC terminal. Source: Department of Energy.

require reliability of service more than high speed, make few if any intermediate stops, and typically carry much greater tonnage relative to their horsepower than do other trains.

Intercity Trucks

Truck freight service is of two broad types: intercity and local pick-up and delivery. Intercity service is typically in large (up to 80,000 pounds gross weight) combination trucks with one or more trailers pulled by a tractor. After the intercity truck delivers its cargo to a terminal, smaller delivery trucks may take it to its ultimate destination. In terms of ton-miles of cargo, the large intercity trucks are usually more energy-efficient than the smaller delivery trucks. This paper considers only intercity truck transportation. 3/

Intercity truck transport, in turn, is of two types: truckload (TL) and less-than-truckload (LTL). Truckload service is used mostly by larger shippers in regular service. It is more energy-efficient on a ton-mile basis than less-than-truckload service.

Table A-3 summarizes recent estimates of truck freight propulsion energy use. Those in the top part represent averages for all intercity truck freight in either the United States or Canada. In contrast to the estimates for railroads, there is greater variation among these estimates—which range between 1,800 and 2,500 BTUs per ton-mile of cargo.

Most of these estimates use two sets of data: the average load and the average miles per gallon for a certain type of truck. The ICC collects data on average load, but there is no consistent source of data on truck fuel economy. Thus, there is greater uncertainty associated with each particular estimate than is the case for railroads. Further uncertainty is caused by the existence of many different types of trucks. For example, the Transportation Systems Center estimate in Table A-3 is for combination trucks, of which the Class VIII diesel trucks (over 30,000 pounds gross weight) considered by Rose are a subset.

3/ The exclusion of urban freight transportation presents a somewhat optimistic view of truck energy use. Of course, other modes (notably railroads and air freight) depend on local truck service for pick-up and delivery and are thus also affected by this exclusion.

As with other modes of transportation, extra energy is consumed in empty backhauls. These are included in most of the estimates in Table A-3. The ICC estimates that in 1976 some 20.4 percent of trucks operated empty and an additional 14.4 percent were only partially loaded. In total, 27.1 percent of the available truck capacity was empty. 4/ For trucks engaged in interstate service the estimates are slightly lower, while for trucks that are unregulated by the ICC the estimates are higher. The comparable estimate by the ICC for railroads is 44 percent. 5/ Adjusting some of the estimates in Table A-3 for the effect of empty backhauls is not easy. For example, Rose estimates that a Class VIII truck (the largest truck class, typically used for long-haul service) achieves about 4.5 miles per gallon when loaded. 6/ At an average load of 18.04 tons, this yields about 1,710 BTUs per ton-mile. Rose adjusts this for the percent of truck capacity that is empty (using a 1974 estimate by the Department of Transportation of 30.7 percent empty, rather than the estimate for 1976 by the ICC of 27.1 percent), arriving at an overall estimate of 2,470 BTUs per ton-mile of cargo. This estimate should be adjusted, however, for the greater fuel economy achieved when a truck is empty. 7/

4/ Interstate Commerce Commission, Bureau of Economics, Empty/Loaded Truck Miles on Interstate Highways During 1976 (April 1977). This includes all trucks whether or not they are regulated by the ICC.

5/ This number is different from that used in the rail section above since the ICC presents its rail survey in terms of the ratio between empty miles and loaded miles. The resulting rail ratio, 0.79, is equivalent to the figure of 44 percent empty mentioned here (79/179).

6/ Rose, op. cit., pp. 6-10.

7/ This fuel economy can be estimated using an engineering relationship such as Smith's formula for resistance (G.L. Smith, Commercial Vehicle Performance and Fuel Economy, SAE SP-355, Warrendale, Pa., 1970):

$$R_t = (W_e + W_c)(a + bV) S + c DAV^2$$

where

R_t = total resistance to straight-line movement over level terrain (lbs)

TABLE A-3. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR INTERCITY TRUCKS

Source a/	BTUs per Ton-Mile b/	Comments
Rose	2,470	Class VIII diesel trucks at 4.5 mpg and average load (2,140 if adjusted for higher mpg when empty)
	1,860-4,120	Depends on commodity carried
Pollard	2,530	1977, combination trucks only (5.42 mpg)
Leilich	2,343	1972
AAR Factbook	1,980	1978, regulated common carriers
CACI	2,403	1975, estimated
DelCan	1,900	1976, Canada, estimate
IBI Group	2,100-3,400	Canada, depends on weight of cargo (5-5.5 mpg)
Paxson	2,170	15-ton load; intercity TL service
	1,690	20-ton load; intercity TL service
	1,415	25-ton load; intercity TL service, 6 mpg empty, 4.5-5 mpg loaded, 1977-1979
Department of Energy	1,596	1979, 12 trips between Chicago and Minneapolis/St. Paul, 45-foot trailers
National Highway Traffic Safety Administration	1,207	1979 road test near Frederick, Maryland, over 53 mile course, 72,000 lb. gross vehicle weight
	2,514	48,000 lb. gross vehicle weight

(Continued)

TABLE A-3. (Continued)

Source a/	BTUs per Ton-Mile b/	Comments
Yellow Freight		1976, trip between Baxter Springs, Kansas, and Dallas, 420 miles, with 22 tons of ballast, 10-15 mph wind
	1,560	Bias-ply tires (with headwind)
	1,383	Radial tires (with headwind)
	1,333	Bias-ply tires (with tailwind)
	1,148	Radial tires (with tailwind)
Reebie Associates	1,723	Portland-Los Angeles, twin 27s door-to-door, 1971
Iowa DOT	3,000	10 tons of cargo per truck, 50 mph, no grade
	4,400	10 tons of cargo per truck, 50 mph, 1 percent grade
Jack Faucett Associates (Case Studies)	1,510	1975, bulk commodity, common carrier, 4.6 mpg, 20 tons average load
	2,030-2,190	1975, general freight, common carrier, 4.37-4.71 mpg, 14.5 tons average load
	1,950-2,240	1975, general freight, common carrier, 4.42-5.07 mpg, 14 tons average load
American Trucking Association	1,335	Truck loaded at federal maximum 80,000 lbs. gross vehicle weight

a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise.

The calculations in footnote 7 indicate that the typical loaded truck that averages 4.5 miles per gallon will average 6.6 miles per gallon when empty. Combining these numbers with the ICC's finding that 27.1 percent of truck-miles are run empty results in an estimate of 2,140 BTUs per ton-mile of cargo as against the 2,470 BTUs used by Rose. Rose's estimate would be correct if, as he apparently assumed, the base estimate of 4.5 miles per gallon were already adjusted for better fuel economy when empty.

The lower part of Table A-3 contains estimates of truck energy use under particular conditions. While the first three of these are based on road tests, only the Department of Energy results represent actual operating conditions. The National Highway Traffic Safety Administration and the Yellow Freight Company tests were not conducted under normal operating conditions, and thus should be interpreted with caution. In particular, the

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7/ (Continued)

W_e = empty vehicle weight (lbs)

W_c = cargo weight (lbs)

a, b = coefficients of tire rolling resistance:
$a = 0.0068$, $b = 0.000074$

V = velocity (miles per hour)

S = road surface factor: 1 = normal road

C = coefficient for drag: 0.00253

D = aerodynamic drag coefficient: 0.71

A = vehicle frontal area (square feet)

From this relationship the relative resistance for a loaded truck as against an empty truck can be calculated. With certain additional assumptions (empty weight = 29,000 pounds, loaded weight = 65,000 pounds, velocity = 55 miles per hour, vehicle frontal area = 96 square feet) the resistance of a loaded truck is estimated as about 1.47 times that of an empty truck. This implies that if a loaded truck averages 4.5 miles per gallon, an empty truck should achieve 6.6 miles per gallon.

tests were for trucks with full loads in relatively flat terrain and very little traffic congestion.

The estimate by Reebie Associates 8/ includes energy used in pick-up and delivery. The estimates by the Iowa DOT are based on engineering relationships. They are useful since they show the effect of hills on energy consumption. The last set of estimates represent averages for particular, unnamed trucking companies as reported by Jack Faucett Associates.

Water Transportation

Water transportation in the full sense includes several modes of transportation: towboats pushing barges on inland waterways, tugs and barges on the intracoastal waterways and the Great Lakes, deep-draft vessels on the Great Lakes or in coastal trade, and deep-draft vessels in international commerce. This report focuses on inland barge transportation, but estimates for intracoastal shipping and deep-draft domestic shipping are given here for the sake of comparison.

The estimates in Table A-4 vary considerably, reflecting the generally uneven quality of the data and the difference between the various forms of water transport. In contrast to rail, truck, and air, only about 8 percent of the inland barge industry is regulated by the federal government. Since little information is available on the unregulated sector, data on propulsion energy must be patched together from several sources, including private barge companies, the Interstate Commerce Commission, the U. S. Army Corps of Engineers (for tonnage data), and engineering studies.

Estimates of overall propulsion requirements for the inland waterways range from 272 to 680 BTUs per ton-mile of cargo. Most estimates cluster in the 300-500 BTUs range. Direct comparisons are difficult because of inconsistencies in the underlying data.

Rather than attempt to combine data from several disparate sources, Booz, Allen, and Hamilton selected what they believed to be typical or generic types of vessels: for example, a 1,350 horsepower towboat was selected to represent inland barge movements and then BTUs per ton-mile were calculated on the basis of engineering estimates of fuel economy under

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8/ Reebie Associates, An Improved Truck/Rail Operation: Evaluation of a Selected Corridor, prepared for the Federal Highway Administration (December 1975).

TABLE A-4. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR WATER TRANSPORTATION

Source a/	BTUs per Ton-Mile b/	Comments
Rose	440	1977, all domestic water including inland, lakes, and coastal
Pollard	438	1977, all domestic water modes
	559	1977, inland and local
	376	1977, coastal and lake
Leilich	272	1972, inland
	226	1972, coastal and lake ship
	281	1972, coastal and lake barge
Booz, Allen, Hamilton	481	Inland, based on generic ship (1,350 horsepower)
	380	Coastal average: tug/barge = 355; tanker = 278; other = 941; based on generic vessels
	511	Great Lakes average: dry bulk = 484-543; tanker = 587-652; tug = 304-320 based on generic vessels
CACI	350	1975, estimated for inland
	387	1973, estimated for deep-draft
Sebald	459	1971, Mississippi River and Gulf Intracoastal, does not include all switching energy (adjusted to exclude circuity)
DelCan	932	1976, Canada, shallow and deep-draft

(Continued)

TABLE A-4. (Continued)

Source a/	BTUs per Ton-Mile b/	Comments
Eastman (American Waterways Operators)	352	1977, average for 27 inland barge
Eastman (Water Transport Association)	326	1978, 2 inland barge operators; Lower Mississippi = 278, Ohio River = 329, Illinois River = 366
Zucchetto	249	Dedicated towboat and 15-jumbo-barge tow between St. Louis and St. Paul--data from Federal Barge Lines
Eastman (American Commercial Barge Line)	325	Average for 1978. Range: 264 on lower Mississippi to 605 on Gulf Coast Waterway
Iowa DOT	500	7-barge tow
Hooker and Others	587	1972, coastal tanker for one U.S. firm (Metrics, Inc.)
	638	1975, coastal tanker for one U.S. firm (Metrics, Inc.)
	480	Recalculation of Booz, Allen, and Hamilton estimate of 355 for coastal tanker

a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise.

typical operating conditions for that vessel. In general, estimates based on such engineering relationships predict lower levels of fuel consumption than those drawn from experience under actual operating conditions. Another study found that the Booz, Allen, Hamilton engineering-based estimates for coastal tankers had to be increased by about one-third in order to match estimates of actual fuel consumption by the industry. 9/

Although all forms of water transport are relatively energy-efficient, at least in terms of propulsion energy, there is considerable variation among the different types of water movement. One study found that two to four times as much energy per ton-mile is required on the Gulf Intracoastal Waterway as on the Lower Mississippi River, because the Lower Mississippi is wider and deeper, has no delays associated with locks or congestion, and typically has larger tows. 10/ Performance on the Lower Mississippi also differs widely from that on other rivers, such as the Ohio. Moreover, typical upstream movement requires about 2.7 times as much energy per ton-mile as does movement downstream. 11/

There have been no controlled measurements of fuel use for barges under actual operating conditions. This is partly because of the difficulty involved in making precise measurements. Several barge lines have reported company-wide averages for their fuel consumption per ton-mile. As given by American Waterways Operators, they average about 350 BTUs per ton-mile of cargo. These results may be somewhat low since they do not appear to include energy used by switch boats.

9/ John Hooker, Axel Rose, and Kenneth Bertram, Comparison of Operational Energy Intensities and Consumption of Pipelines Versus Coastal Tankers: U.S. Gulf Coast to Northeast Coast Routes, U.S. Department of Energy, Office of Transportation Programs (January 1980), p. 10.

10/ R. H. Leilich and others, Energy and Economic Impacts of Projected Freight Transportation Improvements, prepared by Peat, Marwick, Mitchell and Company for Transportation Systems Center (November 1976), pp. 2-29. This analysis is based in large part on a modified version of the Howe formula for Still-Water Speed, p. C-4. The American Commercial Barge Lines reports (in "Modal Productivity Improvement and Related Energy Problems," Traffic Quarterly, April 1980, p. 221) results of 264 BTUs per ton-mile on the Lower Mississippi and 605 BTUs on the Gulf Coast waterway.

11/ Leilich and others, Energy and Economic Impacts.

Air Freight

Air freight is carried either in planes specially designed for the purpose or in the luggage compartments of regular passenger planes. Table A-5 presents estimates of propulsion energy requirements. They vary much more than the findings for other modes, primarily because of differences in method.

TABLE A-5. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR AIR FREIGHT

Source a/	BTUs per Ton-Mile b/	Comments
Rose	3,400	1976, belly freight, incremental energy
	25,360	1976, domestic freight aircraft
	23,310	1976, international freight aircraft
	14,070	1976, average all air freight
Pollard	3,300	1977, belly freight, incremental energy
	25,000	1977, freight aircraft
	11,775	1977, all domestic air freight
	12,409	All air freight
Leilich	14,188	1972, belly cargo, incremental energy
	29,949	1972, belly cargo, average energy
DelCan	45,200	1976, Canada, international and domestic
IBI Group	28,633	Boeing 707, 750-mile trip
Iowa DOT	10,000	Boeing 747, 1,000 miles with 100-ton payload

a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise.

The calculation of propulsion energy needed for aircraft that carry only freight is straightforward, requiring only data for total fuel consumption and total ton-miles of cargo. A typical estimate is about 25,000 BTUs per ton-mile of cargo.

The calculation of freight energy intensity for aircraft carrying both freight and passengers is more complex. The fuel consumed by the plane must be allocated in some way between freight and passengers. Two approaches have been used. One is to give freight and passengers equal importance, and use a measure such as relative weight to allocate fuel. A typical answer using this approach is about 40,000 BTUs per ton-mile of cargo. An alternative approach is to assume that these combination aircraft exist primarily for passenger service, with freight carried only on a space available basis. The bulk of the fuel use is then allocated to passenger service on the assumption that the plane would not be scheduled without passengers, so that freight need only be responsible for the marginal or incremental energy needed to move its weight. A typical estimate is about 3,300 BTUs per ton-mile of cargo. Of the two approaches, the last is preferable since it appears to correspond most closely with airline priorities. 12/ The growth in passenger load factors under deregulation shows that airlines favor passengers at the expense of freight. Also, in the last few years, the air freight industry appears to have made more use of all-freight aircraft because of the better service they provide.

Overall air freight energy intensity can be estimated by combining energy for all freighter aircraft and for combination aircraft. Using the incremental approach for combination aircraft, a typical overall estimate is 12-14,000 BTUs per ton-mile of cargo.

Pipelines

Table A-6 presents estimates of the propulsion energy requirements for pipelines. In general, petroleum pipelines are one of the most energy-efficient modes of transportation.

As with other modes, there is considerable variation depending on the commodity moved, the speed and conditions under which it is being moved (most obviously, uphill or downhill), and the size of the pipeline. Table A-6 indicates that natural gas requires about six times as much energy per ton-

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12/ This is also the conclusion reached by Rose after a careful review of existing data.

TABLE A-6. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR PIPELINES

Source a/	BTUs per Ton-Mile b/	Comments
Hooker	270	Crude petroleum
	320	Petroleum products, natural gas
W. F. Banks	286	1976, crude petroleum
	330	1976, oil
	388	1976, petroleum products
	2,000	1974, natural gas
Leilich	158	1972, regulated pipelines only
	281	1980, projected, regulated pipelines only
CACI	475	1975, estimated
	411	1975, estimated for crude petroleum
	537	1975, estimated for petroleum products
DelCan	752	1976, Canada
Hooker and Others	283	Petroleum products, estimates
	326	for two separate companies

a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise.

mile of load as most petroleum products since gas is much less dense than oil. Gas pipelines are also more energy-intensive, using about 2.5 percent of the energy transported or five to six times as much as for oil or oil-product pipelines. 13/ A small pipeline (say 4 inches in diameter) requires about

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13/ J. N. Hooker, Oak Ridge National Laboratory, Oil Pipeline Energy Consumption and Efficiency, prepared for the U.S. Department of Energy.

eight times as much energy per ton-mile to move crude oil as does a very large one (say 48 inches in diameter). 14/

Most of the estimates in Table A-6 are based on aggregate data. Hooker and others, however, give data for two separate firms, with the larger of the two reporting lower energy requirements (283 BTUs per ton-mile of cargo).

Coal Slurry Pipelines

Slurry pipelines represent a relatively new technology in which solid material, such as coal, is ground into a powder, mixed in solution with a liquid such as water, and pumped through a pipeline. While many combinations of materials are possible, coal/water slurries currently receive the greatest attention. One coal/water slurry pipeline is now in operation moving coal from Black Mesa, Arizona, to a power plant at Mohave, Nevada. There are several active proposals to build other large pipelines mostly in the West.

Table A-7 presents several estimates of energy requirements for coal/water slurry pipelines. The first four sets of estimates are based on analyses of the Black Mesa pipeline, while the last two represent engineering-based analyses of proposed pipelines.

Coal slurry pipelines require energy at several distinct stages: collection (via pumps and pipelines) of the required water; preparation of the slurry (pulverizing the coal and mixing it with the water); pumping of the slurry; dewatering or separating of the coal and water at the end of the pipeline; and finally, disposal of the dirty water. The estimates for energy use by the Black Mesa line vary quite widely, from about 300 BTUs per ton-mile of load to over 4,000. The lowest estimate is clearly faulty since it excludes the energy used in generating electricity; because of thermal losses, generation requires about three times the energy content of the electricity itself. Even after correcting for this factor, the range of estimates for the energy requirements of this facility is surprisingly wide. Some of the variation may be the result of failure to consider all the energy

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14/ J.N. Hooker, Oil Pipeline Energy Consumption and Efficiency. The average velocity is another very important factor, with energy requirements increasing in proportion to velocity raised to the power of 1.852. See Leilich and others, pp. 3-49, 3-50.

TABLE A-7. ESTIMATES OF PROPULSION ENERGY REQUIREMENTS FOR COAL SLURRY PIPELINES

Source a/	BTUs per Ton-Mile b/	Comments
Southern Pacific	312	Actual 1978 for Black Mesa line, 2,600 foot net drop over 273 miles
	1,042	Assuming 30 percent efficiency for electric generation
W. F. Banks	4,800	For Black Mesa line, includes water supply, pumping, preparation, and dewatering
	680	For Black Mesa line, pumping energy alone assuming 22 percent efficiency for electric generation (500 BTUs with 30 percent efficiency
	624	For proposed ETSI pipeline, 1,000 miles, 25 million tons per year
CACI	2,588	1975, estimated for Black Mesa line
Zucchetto	601	Direct fuel consumption for Black Mesa line
	673	Direct fuel plus water distribution for Black Mesa line

(Continued)

needed to prepare the slurry and then to dewater it. In this regard, the study by Banks appears to have been the most thorough. 15/ It also results in the highest estimate, 4,800 BTUs per net ton-mile, although the estimate of 680 BTUs for pumping alone is in line with that of other estimates.

15/ William F. Banks, Energy Consumption in the Pipeline Industry, prepared for U.S. Department of Energy (December 1977).

TABLE A-7. (Continued)

Source a/	BTUs per Ton-Mile b/	Comments
Office of Technology Assessment	610	Average for four case studies
	410	Proposed Wyoming-Texas line, 1,170 miles, 35 million tons per year
	710	Proposed Montana-Wisconsin line, 921 miles, 13.5 million tons per year
	920	Proposed Tennessee-Florida line, 803 miles, 16 million tons per year
	1,150	Proposed Utah-California line, 522 miles, 10 million tons per year
IBI Group	329	1,000-mile line
	1,097	1,000-mile line assuming 30 percent efficiency for electric generation
	522	200-mile line
	1,740	200-mile line assuming 30 percent efficiency for electric generation

a/ See Appendix B for full citation of each source.

b/ Per ton-mile of cargo unless stated otherwise.

At various times the Black Mesa line has been forced to operate at less than peak efficiency, either because of pipeline operating problems or because the power plant was not able to accept all the coal the pipeline could deliver. Thus, measured efficiency might vary considerably from one time to another. On average, its performance is probably inferior to what would be likely from a new pipeline. On the other hand, the Black Mesa line has an unusually large vertical drop, which should increase its energy efficiency. Banks estimates that energy requirements for a level line would be about 35 percent greater.

The other estimates in Table A-7 (those by the Office of Technology Assessment, IBI Group, and one of those by Banks) are all based on engineering studies for proposed slurry pipelines. In general, they appear lower than those for the Black Mesa line—perhaps for several reasons. Most important, the proposed pipelines are longer so that the energy for preparation and dewatering is spread over many more miles. For example, Banks has estimated that if the proposed 1,600-mile ETSI line were as short as the Black Mesa line, its energy consumption would be over 50 percent higher, or 970 BTUs per ton-mile of load. Also, lines with larger capacity may generate greater economies of scale. On the other hand, these estimates are based on engineering studies, and the history of most new forms of transportation shows that performance in practice is often not as good as suggested by the first engineering estimates.

Other forms of slurry pipeline are being explored, including some that appear to be more energy-efficient than the coal/water slurry pipeline. Of these, the proposed coal/methanol slurry appears promising. One advantage is that methanol avoids the expensive dewatering of traditional slurries, and is a valuable source of energy itself.

Coal slurry pipelines have many advantages and disadvantages aside from their relatively low energy intensity, and these are likely to be much more important in deciding the future of slurry pipelines.

Summary of Propulsion Energy Requirements

Table A-8 summarizes the estimates of propulsion energy presented in Tables A-1 through A-8 for each of the modes. In addition, a typical or best estimate is selected for each mode. The estimate chosen does not represent an average, but rather reflects assessment of the quality of the data and the analysis contained in each estimate. The estimates for those modes that use petroleum energy are also adjusted for energy used during refining--about 5 percent. These adjusted estimates are used in Chapter III.

The estimates selected as typical for rail TOFC (950 BTUs) and unit coal train (350 BTUs) are based on the field measurements reported in Tables A-1 and A-2. The estimate for intercity truck (2,000 BTUs) is slightly lower than Rose's estimate in order to reflect the continuing

TABLE A-8. SUMMARY ESTIMATES OF PROPULSION ENERGY REQUIREMENTS (In BTUs per ton-mile of cargo)

Mode	Range of Estimates	Typical Estimate	Estimate Adjusted for Energy Losses in Refining
Rail - Overall	550 - 690	630	660
TOFC	730 - 1,370	950	1,000
Unit coal train	220 - 410	350	370
Truck			
Average intercity	1,400 - 2,530	2,000	2,100
Barge - Overall	250 - 500	400	420
Upstream	---	550	580
Downstream	---	210	220
Air			
All-cargo plane	23,310 - 28,630	25,000	26,250
Belly freight a/	3,300 - 29,950	3,400	3,570
Oil Pipeline	160 - 540	325	325
Coal Slurry Pipeline b/	410 - 4,800	1,000	1,000

a/ The wide range of estimates results from the use of two different methods.

b/ The wide variation results from different degrees of comprehensiveness (pumping energy alone as against coal preparation and dewatering as well), and also from the differences between engineering studies of large --as yet unbuilt--pipelines and the smaller-scale line now in operation.

improvements in truck fuel economy. The barge estimate (400 BTUs) is slightly higher than the 350 BTUs average reported by American Waterways Operators, but less than that estimated by most other analysts. The upstream-downstream split is based on Howe's formula for still-water speed as used by Leilich and others. The air cargo numbers (25,000 BTUs for all cargo planes and 3,400 BTUs for belly freight) follow Rose while the oil pipeline estimate (325 BTUs) is based largely on Hooker and others and on W. F. Banks. The estimate for coal slurry pipeline (1,000 BTUs) is based on less evidence than those for the other modes. It is near the high end of the engineering studies reported, while discounting some of the optimism likely from proponents of a new, relatively untested technology. It is substantially less than the Black Mesa estimate of W.F. Banks (4,800 BTUs) on the assumption that economies of scale and greater operating experience should result in improved efficiency for any new coal slurry pipeline.

VEHICLE MANUFACTURING ENERGY

Significant quantities of energy are used to manufacture transportation vehicles. Distributed over the expected life of the vehicle, however, on a ton-mile basis, manufacturing energy is considerably smaller than propulsion energy.

Table A-9 presents estimates of the energy used in the manufacture of several typical freight vehicles. With the exception of the estimate by Fels, they are based on input-output analysis, a technique that permits one to trace the energy used both directly and indirectly in any particular manufacturing operation. Unfortunately, the coefficients of input-output tables tend to be out-of date; the most recent data available for energy analysis were collected in the 1960s, and manufacturing techniques and materials have changed somewhat since then.

One of the estimates is based on process analysis. This method identifies all the basic materials used in manufacturing and calculates the energy required to produce each one. In theory, process analysis and input-output analysis should result in identical answers. In fact, they differ. For smaller vehicles such as automobiles the differences are not large, but for larger vehicles such as airplanes process analysis shows considerably smaller energy requirements than does the input-output technique.

Not surprisingly, Table A-9 shows that the amount of energy required in vehicle manufacture increases with the size and complexity of the vehicle. The typical locomotive, for example, requires about eight times the energy needed for the typical freight car, but less than one-tenth that needed for a large jet airplane. For purposes of comparison it is necessary to distribute the energy required in manufacture over the ton-miles carried in the vehicle's lifetime. For example, if 1,500 million BTUs are required to

TABLE A-9. ESTIMATES OF VEHICLE MANUFACTURING ENERGY

Mode and Source	Vehicle	Millions of BTUs
Railroad		
Pollard	RR Locomotive (1967)	15,500
Pollard	RR Locomotive (1977)	12,988
IBI Group	RR Locomotive (1974)	14,726
Pollard	RR Freight Car (1967)	1,810
Pollard	RR Freight Car (1977)	1,659-1,752
IBI Group	Aluminum Hopper Car (1974)	1,731
IBI Group	50-Foot Box Car (1974)	1,491
Truck		
Pollard	Truck Tractor (1977)	1,920
IBI Group	Truck Tractor (Ford)	884
Pollard	45-Foot Truck Trailer (1977)	644
IBI Group	Truck Trailer (Fruehauf)	353
Water		
IBI Group	Ship (Self-Unloading Bulk Laker)	609,426
Air		
IBI Group	Airplane (Boeing 707-320B)	170,161
IBI Group	Airplane (Boeing 707-320C Freighter)	162,396
Fels	Airplane (Boeing 707-passenger)	20,130 a/

SOURCES: IBI Group, Indirect Energy in Transportation (March 1978); J. K. Pollard, Indirect Energy Consumption in Truck and Rail Freight Transportation, U.S. Department of Transportation, Transportation Systems Center (January 1980); Margaret Fels.

a/ Estimated using process analysis.

manufacture a railroad freight car, which then lasts for 35 years carrying an average of 657,000 ton-miles of cargo a year, 16/ the manufacturing energy

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16/ Association of American Railroads, Yearbook of Railroad Facts, 1979 edition, p. 44.

is reduced to the equivalent of only 65 BTUs per ton-mile, or about 10 percent of the propulsion energy alone.

Table A-10 presents summary estimates of vehicle manufacturing energy per ton-mile of cargo and as a fraction of propulsion energy per ton-mile (see Table A-8). The estimates used here are somewhat less than those of IBI (a Canadian consulting firm), since input-output analysis appears to

TABLE A-10. SUMMARY ESTIMATES OF VEHICLE MANUFACTURING ENERGY

Mode	BTUs per Ton-Mile of Cargo	As Percent of Propulsion Energy
Rail - Overall	90	13.6
TOFC	80	8.0
Unit coal trains	60	16.2
Truck		
Average intercity	100	4.8
Barge - Overall	40	9.5
Upstream	40	6.4
Downstream	40	18.2
Air		
All-cargo plane	150	0.6
Belly freight	20	0.6
Oil Pipeline	0	0.0
Coal Slurry Pipeline	0	0.0

give estimates at the high end of the range. 17/ While the summary estimates in Table A-10 are less definitive than those for propulsion energy in Table A-8, they appear intuitively plausible. All-cargo planes require the most energy per ton-mile of cargo, followed by truck, rail, barge, and finally, as a special case, belly freight.

GUIDEWAY CONSTRUCTION ENERGY

Constructing the guideway for any transportation mode requires very large amounts of energy. The long economic life of the typical guideway, however, makes it a small factor per ton-mile. As a result, when calculated on a per ton-mile basis, construction energy is roughly comparable to vehicle manufacturing energy in importance, and small relative to propulsion energy. Trucks require more construction energy than any other mode (see Table A-12), yet this equals only 14 percent of truck propulsion energy.

Table A-11 presents estimates of the total energy required to construct transport guideways in terms of billions of BTUs per lane-mile or track-mile (except for noncontinuous facilities such as terminals or airport runways). Most of the estimates are based on input-output analysis. Those by Fels and DeLeuw Cather use process analysis. While in theory the two techniques should yield identical results, in practice input-output analysis gives substantially higher estimates of construction energy--two to three

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17/ The estimates of railroad manufacturing energy use the lowest estimates shown in Table 9: 12,988 million BTUs for a locomotive (from Pollard), 1,491 million BTUs for a boxcar, and 1,731 million BTUs for a hopper car. In general, IBI's assumptions about vehicle life are used: 25 years for a locomotive and 30-35 years for hopper cars and boxcars respectively. On average, one locomotive is assumed to be required for each 30 boxcars and each 15 hopper cars. Truck manufacturing energy requirements represent an average of the results of Pollard and IBI, combined with IBI's assumption of a 15-year life, 80,000 miles per year, and a 16-ton average load. Manufacturing energy for barges is estimated at 10 percent of propulsion energy--somewhat less than that used by IBI. Airplane manufacturing energy is an average of the results for process analysis and input-output analysis as a simple way to adjust for the wide differences between these two methods. Cargo planes are assumed to have a life of 20 years and fly an average of one million miles a year with an average load of 31 tons (based on IBI). Manufacturing energy for belly freight is assumed to bear the same relationship to propulsion energy--0.6 percent--as for all-cargo planes.

TABLE A-11. ESTIMATES OF GUIDEWAY CONSTRUCTION ENERGY

Mode	Source	Per Lane-Mile or Track-Mile (In billions of BTUs)
Rail		
Rail line	IBI a/	82.0
Urban rail (at grade)	Fels b/ f/	17.1-19.1
Urban rail (at grade)	DeLeuw Cather c/ e/	
Freight yard	IBI a/	2,060.0 d/
Truck		
Rural arterial	IBI a/	17.8
Rural freeway	IBI a/	23.9
Urban arterial	IBI a/	24.6
Urban freeway	IBI a/	55.4
Urban freeway	Fels b/	15.7
Urban freeway	DeLeuw Cather (road only) c/	17.1 d/
Bridge	DeLeuw Cather c/	130.4 d/
Urban freeway	Bezdek and Hannon c/	41.6
Terminal and garage	IBI a/	52.0 d/
Water		
Bulk materials dock	IBI a/	797.0 d/
Canal	Simpson f/	100.0
Air		
Runway system	IBI a/	6,312.0 d/
Cargo terminal	IBI a/	78.0 d/

(Continued)

times as high in the case of highways and four to six times as high for railroads. The two methodologies do provide upper and lower bounds. In general, the results of process analysis are probably more realistic, since they are based on a more detailed analysis of each construction activity. The input-output approach (in addition to using data about 15 years old) has a considerable amount of aggregation in nonmanufacturing areas such as

TABLE A-11. (Continued)

Mode	Source	Per Lane-Mile or Track-Mile (In billions of BTUs)
Coal Slurry		
Pipeline	IBI a/	32.0 d/
Terminal	IBI a/	2,611.0 d/

a/ Based on 1966 input-output analysis. IBI Group, Indirect Energy in Transportation, prepared for Strategic Studies Branch of Transport Canada (March 1978).

b/ Based on process analysis. Margaret F. Fels, "Comparative Energy Costs of Urban Transportation Systems," Transportation Research, vol. 9 (1975), pp. 197-208.

c/ Based on process analysis. DeLeuw, Cather and Company, Indirect Energy Consumption for Transportation Projects, prepared for California Department of Transportation (October 1976).

d/ For full facility.

e/ For urban rail transit at grade. The Fels estimate is based on BART.

f/ Based on input-output analysis for the Tennessee-Tombigbee Waterway. David Simpson, Energy and Labor Requirements for the Construction and Annual Operations of the Tennessee-Tombigbee Waterway Project, Technical Memo No. 21, Energy Research Group, Center for Advanced Computation, University of Illinois at Urbana (July 1974).

construction. Typically, most construction activity is lumped together in a single energy coefficient. One detailed comparison of input-output analysis and process analysis in rail transit construction found that excavation accounted for the bulk of this difference. [18]

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[18] G. P. Williams, "Energy Costs of Heavy Rail Transit Construction," Masters Thesis, School of Engineering and Applied Sciences, Princeton University, June 1978.

The summary construction energy estimates shown in Table A-12 also use the IBI report as a starting point, again because it is the only comprehensive report to give such detail. The data are adjusted to compensate roughly for the higher estimates given by input-output techniques yielding estimates that are about half those made by IBI. An important exception is that for trucks, where the high end of the range is used. IBI allocated highway construction energy on the basis of the amount of space used by each vehicle (passenger-car equivalents). Pavement, a major component of highway construction, is known to wear in proportion to a measure of weight per axle called axle-load equivalent. Using this measure, heavy trucks are accountable for most of the energy used in the pavement part of highway construction.

TABLE A-12. SUMMARY ESTIMATES OF CONSTRUCTION ENERGY

Mode	BTUs per Ton-Mile of Cargo	As Percent of Propulsion Energy
Rail - Overall	200	30.3
TOFC	200	20.0
Unit coal train	100	27.0
Truck		
Average intercity	300	14.3
Barge - Overall	50	11.9
Upstream	50	8.6
Downstream	50	22.7
Air		
All-cargo plane	100	0.4
Belly freight	25	0.7
Oil Pipeline	25	7.7
Coal Slurry Pipeline	50	5.0

MAINTENANCE ENERGY

Table A-13 displays estimates of the energy needed to maintain both vehicles and infrastructure, based on input-output analysis. As before, these estimates should be treated as upper bounds. They show vehicle maintenance energy at about 10 percent of truck propulsion energy, 5 percent of rail propulsion energy, and only 1 percent of air freight propulsion energy. On this basis, one may estimate vehicle maintenance energy for barges (including tugs) at 5 percent or less of propulsion requirements.

For most fixed facilities, the annual maintenance energy is about 0.5 percent of the total construction energy estimated using input-output techniques. (Air cargo terminals, truck terminals, and urban arterial roads are the major exceptions, with much higher maintenance energy requirements). If most infrastructure investments are assumed to have an economic life of 20 years, this translates into maintenance energy requirements equal to about 10 percent of construction energy. Again, these results should be treated as rules of thumb at best. In any case, maintenance energy is clearly less important than construction energy.

Table A-14 presents summary estimates of total maintenance energy per ton-mile of cargo and as a percentage of propulsion energy. These estimates combine maintenance energy for both the vehicle and for the infrastructure and are based on the estimates made by IBI.

ACCESS ENERGY

The energy required to move freight to and from the transportation system--termed "access energy"--can have a major influence on the system's relative energy efficiency. Typically, the mode of transportation used for local pick-up and delivery is less energy-efficient per ton-mile of cargo than the long-distance mode.

No reliable data are available on access energy requirements, and this energy factor will have to be discussed in largely qualitative terms. 19/ Access energy can play a major role in waterborne transportation, since commodities must often be moved a considerable distance to or from a port

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19/ Reebie Associates' studies of rail TOFC/COFC movements and truck freight are the only analyses of freight energy intensity that have included access energy. Unfortunately, not enough detail was presented to enable one to split the access portion from the line-haul requirements.

TABLE A-13. ESTIMATES OF VEHICLE AND INFRASTRUCTURE MAINTENANCE ENERGY

Mode	Vehicle Maintenance Energy (In BTUs per vehicle-mile)	Infrastructure Maintenance Energy (In millions of BTUs per lane-mile or track-mile)
Rail		
Locomotive	16,625	---
Boxcar	1,313	---
Hopper car	1,225	---
Railway line	---	240
Freight yard	---	12,000 a/
Truck		
Tractor trailer	3,150	---
Rural arterial road	---	75
Rural freeway	---	118
Urban arterial road	---	378
Urban freeway	---	396
Truck terminal	---	800 a/
Water		
Self-unloading bulk laker	70,000	---
Bulk materials dock	---	4,000 a/
Canal (inland waterway)	---	900
Air		
Boeing 707 freighter	13,300	---
Runway system	---	53,000 a/
Cargo terminal	---	17,500 a/
Coal Slurry		
Line and terminal	---	960,000 a/

SOURCE: IBI Group, Indirect Energy in Transportation, except for canal (inland waterway) operating energy which is from David Simpson, Energy and Labor Requirements for the Construction and Annual Operations of the Tennessee-Tombigbee Waterway Project.

a/ For full facility.

TABLE A-14. SUMMARY ESTIMATES OF VEHICLE AND INFRASTRUCTURE MAINTENANCE ENERGY

Mode	BTUs per Ton-Mile of Cargo	As Percent of Propulsion Energy
Rail - Overall	180	27.3
TOFC	140	14.0
Unit coal train	60	16.2
Truck		
Average intercity	300	14.3
Barge - Overall	30	7.1
Upstream	30	5.2
Downstream	30	13.6
Air		
All-cargo plane	750	2.9
Belly freight	100	2.8
Oil Pipeline	100	30.8
Coal Slurry Pipeline	100	10.0

or inland waterway. Indeed, under some circumstances, access energy may be even greater than the energy required for the primary mode. Grain bound for New Orleans or other Gulf ports by barge is often first trucked to the Mississippi River, sometimes over a distance of 200 miles. Since the propulsion energy for trucks is about five times that of barges and about ten times that of downstream barges, relatively few truck miles are enough to offset the energy advantage that barges have over railroads.

Access energy is also likely to be significant where there are a limited number of terminals compared with the number of ultimate origins or destinations. Examples include intercity trucks in large, congested urban areas, railroad TOFC/COFC yards, and air freight.

CIRCUITY

It is impossible to travel directly as the crow flies. Even airplane flights involve extra distance because of landing patterns near airports, circling, storm avoidance, and intermediate stops. 20/ The ratio between actual miles traveled and the theoretical minimum as measured by the great-circle distance is called circuity. A circuity of two, for example, means that twice the great-circle distance was traveled.

Circuity is the most important single factor after propulsion in determining the relative energy needs of freight transportation. Its importance has long been recognized, and a number of researchers have studied the circuity of particular modes. Table A-15 summarizes some recent estimates.

Circuity may be divided into two components: network circuity, or the circuity inherent in the transportation network itself; and route circuity, or that of the particular route selected. Total circuity is a combination of these two effects.

Network Circuity

Network circuity is dictated by geography and by the extent or size of the transportation network. For example, water transport modes should have the highest circuity since, except for a few canals, they must follow natural waterways. At the other extreme, air transport should have the lowest circuity since it is restricted by very few natural barriers. Because the highway network is much more extensive than that for rail, direct routes between given pairs of cities are more likely. Thus, truck transport should have somewhat lower network circuity than railroads. Specialized modes such as pipelines and electric transmission lines are less constrained by either geography or the need to serve intermediate points, and thus should have quite low circuity. Of course, they may require extensive feeder networks for access.

20/ An extreme example of this is the operation of Federal Air Express, which carries small packages among the nation's major cities. All shipments, regardless of origin or destination, move by way of Memphis, Tennessee, where they are consolidated.

TABLE A-15. ESTIMATES OF CIRCUITY FOR INTERCITY FREIGHT TRANSPORTATION

Source	Rail	Truck	Inland Water	Air a/
Network Circuity				
Rose	1.321 b/	1.148	1.828	1.00
Mays and others (Boeing) c/	1.240	1.150		1.00
Hannon d/	1.240	1.210	1.710	
Eastman e/	1.320	1.030	1.740	1.00
Eastman f/	1.736		1.991	
Iowa DOT g/	1.200	1.250	1.380	1.05
Western RR Association			1.780 h/	
Reebie i/	1.180			
Office of Technology Assessment j/	1.340			
Nebraska Energy Office k/	1.440		1.950	
Route Circuity				
Interstate Commerce Commission l/	1.150 m/	1.060		

NOTE: These are estimates of network circuity except for the ICC estimate, which is for the circuity of the routes actually used. The estimates by the Western Railroad Association, Reebie, and the Office of Technology Assessment are circuities relative to other transportation modes; see footnotes h, i, and j.

a/ In fact, air circuity is quite large, but the Civil Aeronautics Board reports flight data in such a way that circuity is already taken into account.

(Continued)

TABLE A-15. (Continued)

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b/ Lower bound. Rose also estimates coastal circuity at 1.298 and Great Lake circuity at 1.063.

c/ Estimates in original included ICC route circuity of 1.15 for rail and 1.06 for truck, for total circuities of 1.425 for rail and 1.22 for truck.

d/ From Sebald. Rail and water for region served by Gulf Intracoastal Waterway and Mississippi River. Rail circuity "a balance of minimum distance and minimum number of carriers" (p. 3).

e/ Uses Rose's estimate for rail circuity, Water Transport Association survey for inland water.

f/ For sample of TVA coal traffic, typical distance = 100-150 miles.

g/ 1,000-mile trip.

h/ Circuity is 1.35 relative to rail; range is 1.20-1.55. High estimate based on study by Missouri Pacific Railroad. Using 1.32 for rail circuity results in 1.78 for water, and a range of 1.52-2.05.

i/ Carload service relative to truck on Interstate highway--1.02 under optimal conditions. 1.11 for TOFC, relative to truck--1.10 under optimum conditions. Use of 1.15 for truck results in 1.36 for rail, 1.28 for TOFC.

j/ For four coal unit train routes relative to four proposed coal slurry routes. Coal slurry circuity = 1.03-1.10. Using 1.05 for coal slurry results in 1.41 for rail, and a range of 1.38-1.47.

k/ For grain traffic from South Sioux City, Neb., to New Orleans.

l/ Average difference between actual route and short-line distance over rail or highway network.

m/ Range is 1.08-1.18, depending on type of car. Data are for 1964.

Most of the results reported in Table A-14 are network circuities. Rose 21/ has made extensive calculations of the great-circle distance or theoretical minimum distance between most major cities as well as the minimum distance by rail, truck, and water. If information were also available on ton-miles moved by each mode between each city pair combination, a properly weighted estimate of network circuity could be calculated. Rose was able to do this only for truck transport, resulting in an estimate of 1.148. His estimate of rail circuity used a network of railroad mainlines that carried about two-thirds of railroad gross ton-miles. He argues that the resulting circuity, 1.321, is a lower bound 22/ since mileage on branch lines as well as to and from interchange points is not included. Rose's estimates of waterway circuities are weighted by ton-miles, but only for individual waterways. The estimate of 1.828 for all inland waterways he considers an "absolute lower bound," 23/ since it does not allow for the more circuitous interwaterway movements. Like most others, Rose assumes air transport to have no circuity since the Civil Aeronautics Board shows total fuel consumption but reports distance in terms of great-circle miles rather than actual miles flown. (Thus, the effect of air circuity is already included in the data on propulsion energy. This explains the misleadingly low estimates of air circuity shown in Table A-15.)

The other estimates of overall modal circuity are less comprehensive, with only a few indicating in detail how the calculations were made. Some of the more extreme results come from regional studies. For example, Eastman's estimates of 1.736 for rail and 1.991 for inland water--the highest estimates for both modes--while based on a detailed shipment-by-shipment analysis, is for relatively short hauls in the mountainous area served by the Tennessee Valley Authority. The results probably overstate the circuity typical of rail traffic and thus narrow the difference between rail and barge circuity.

The estimates by the Western Railroad Association, Reebie Associates, and the Office of Technology Assessment compare the circuity of one mode with another, rather than with a common standard such as great-circle distance. Thus, they must be adjusted upward for the circuity of the base mode. Of these studies, the results found by the Office of Technology

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21/ Op. cit. Rose calculated great-circle distances and network circuities for truck, rail, and water for up to 2,450 city pairs.

22/ Op. cit., pp. 5-6.

23/ Op. cit., pp. 4-5. Rose's published study reported a water circuity of 1.914; the number used here is an updated estimate provided in a private communication.

Assessment are of interest since they compare several proposed coal slurry pipelines with competitive unit train coal movements. The routes for coal slurry lines, like other pipelines, are less constrained by geographical or historical factors than other surface transportation modes. Their circuity appears to average about 1.05, and is less than 1.10 in any case.

Route Circuity

Route circuity is a function of several factors: the extent to which different transportation companies have exclusive territories; the minimum size of load required for economic movement; and the complexity of the transportation network. If there is relatively little interaction among the networks of different companies (as is typical for railroads), additional movement may be required to coordinate interchanges. Further, as the size of the minimum economic movement increases, greater efforts are justified to assemble goods at central locations, such as railroad yards or port terminals. On the other hand, the sparser the network--with coal slurry representing one extreme--the closer route circuity will be to zero, as there may be no alternative routes between places.

The Interstate Commerce Commission results are the only estimates of route circuity. They result from detailed surveys of both rail and truck movements. For railroads, the ICC found an average route circuity of 1.15 with a range of 1.08 to 1.18 depending on the type of car. 24/ The importance of interchanges can be seen from the fact that local or one-railroad movements had a circuity of 1.10 while interline movements averaged 1.16. While these data are for 1964, they seem applicable today since there is no evidence of dramatic changes in circuity. A more recent ICC survey indicated that route circuity for the trucking industry averaged 1.06. 25/ Although no surveys have been made for the inland waterway industry, its route circuity is probably negligible since there is rarely any choice about which route to select. Air transport, on the other hand, may have some route circuity since many flights make intermediate stops, but no data are available on the amount of circuity involved.

24/ Interstate Commerce Commission, Bureau of Economics, Circuity of Rail Carload Freight, Statement No. 68-1 (April 1968). For earlier years, the Commission reports circuity of 1.11 in 1933, 1.12 in 1938, 1.13 in 1942, 1.14 in 1944 and 1947, and 1.13 in 1950.

25/ Interstate Commerce Commission, Empty/Loaded Truck Miles on Interstate Highways During 1976 (April 1977).

Total Circuity

Route circuities and network circuities should be combined to find total circuity. A study by Mays and others of the Boeing Corporation is perhaps the only previous analysis to do this. 26/ Their estimate of route circuity was taken from the ICC, and their estimate of network circuity (shown in Table A-15) from an analysis of distances between selected city pairs.

Table A-16 shows total circuity based on estimates of typical network circuity and route circuity. Rose's analysis, while limited by data in some cases, is the most comprehensive and consistent available. It includes only network circuity, however, and needs to be modified to include route circuity. The Interstate Commerce Commission estimates railroad route circuity at 1.15 and truck route circuity at 1.06 (see Table A-15). For railroads, route circuity should vary with the type of service. For example, while average circuity for all types of rail cars is 1.15, that for TOFC (trailers-on-flat-cars) is 1.09, reflecting the higher priority generally given this service. For coal unit trains, a route circuity of 1.145 is used, representing an average of the circuity found for gondola cars in special service (1.16) and hopper cars in special service (1.13). The total circuity for railroads in general is calculated as 1.52 (1.32 times 1.15); for TOFC service and coal unit trains it is 1.44 and 1.51 respectively. Combining the ICC's estimate of truck route circuity (1.06) with Rose's estimate of truck network circuity (1.15) results in an estimate of overall truck circuity of 1.22.

Rose's estimate of 1.828 for inland barge circuity is used, though it may be a conservative estimate. A circuity factor of 1.05 is used for air freight, as a rough estimate of the effect of indirect routing caused by intermediate stops. No network circuity is included for air because of the way fuel consumption data are reported. Both oil and coal slurry pipelines are given a circuity of 1.10. This estimate is at the upper end of the data range, but is probably justified since the estimates do not include the effect of feeder and distribution pipelines.

26/ R.A. Mays, M.P. Miller, and G. J. Schott, "Intercity Freight Fuel Utilization at Low Package Densities--Airplanes, Express Trains and Trucks," in Measuring Energy Efficiency in Freight Transportation, papers presented at the 55th Annual Meeting of the Transportation Research Board (January 1976).

TABLE A-16. SUMMARY ESTIMATES OF CIRCUITY FOR INTERCITY FREIGHT TRANSPORTATION

Mode	Network Circuity	Route Circuity	Total Circuity
Rail - Overall	1.32	1.15	1.52
TOFC	1.32	1.09	1.44
Unit coal train	1.32	1.145 a/	1.51
Truck	1.15	1.06	1.22
Barge	1.83	1.00	1.83
Air	1.00	1.05	1.05
Oil Pipeline	1.10	1.00	1.10
Coal Slurry Pipeline	1.10	1.00	1.10

SOURCES: Table A-15 and text.

a/ Average of circuity for gondola cars and hopper cars in special service.

APPENDIX B. MAJOR SOURCES

Alexander, J.D., J.B. Brackbill, and A.T. Curren, Time, Cost and Energy Factors for Intercity Transportation, Engineering Foundation Conference (July 1978).

American Trucking Association, Debunking the Rail Energy Efficiency Myth (January 1978).

Association of American Railroads, Yearbook of Railroad Facts, 1979, 1980 editions.

Banks, William F., An Energy Study of Pipeline Transportation Systems, U.S. Department of Energy, Division of Transportation Energy Conservation (December 1977).

Batts, Lana R., Intermodal Relative Energy Efficiencies Revisited, American Trucking Association (July 1980).

Bezdek, Roger, and Bruce Hannon, "Energy, Manpower, and the Highway Trust Fund," Science, vol. 185 (August 23, 1974).

Booz, Allen, Hamilton, Energy Use in the Marine Transportation Industry, prepared for Energy Research and Development Administration (January 1977).

CACI, Freight Transportation Energy Use, U. S. Department of Transportation, Research and Special Program Administration (July 1979).

Corsi, Thomas M., and Merrill J. Roberts, Consequences of Motor Carrier Deregulation on Fuel Efficiency, Interstate Commerce Commission, Office of Policy and Analysis (September 1979).

DelCan Ltd, A Comparison of Modal Energy Consumption in Intercity Freight, prepared for Transport Canada (1979).

DeLeuw, Cather and Company, Indirect Energy Consumption for Transportation Projects, prepared for California Department of Transportation (October 1976).

Eastman, Samuel, Energy Intensiveness of Intercity Motor Common Carriage of General Freight: Its Measurement and the Effect of Federal Regulations, in Proceedings of the Transportation Research Forum (1976), p. 17.

Eastman, Samuel, Circuity and the Energy Intensiveness of Inland Waterway and Rail Freight Transportation Systems: A Progress Report, paper presented to the Maritime Transportation Research Board (June 1978).

Eastman, Samuel, Fuel Efficiency in Freight Transportation, The American Waterways Operators, Inc. (June 1980).

Jack Faucett and Associates, Truck Fleet Experience with Fuel Economy Improvement Measures, prepared for the Federal Energy Administration (April 1976).

Fels, Margaret F., Comparative Energy Costs of Urban Transportation Systems, Transportation Research, vol. 9 (1975).

Hooker, J.N., Oil Pipeline Energy Consumption and Efficiency, Oak Ridge National Laboratory, prepared for the U.S. Department of Energy.

Hooker, John, Axel Rose, and Kenneth M. Bertram, Comparison of Operational Energy Intensities and Consumption of Pipelines Versus Coastal Tankers: U. S. Gulf Coast to Northeast Coast Routes, Oak Ridge National Laboratory, prepared for U. S. Department of Energy, Office of Transportation Programs (January 1980).

Hopkins, John B. and A. T. Newfell, Railroads and the Environment: Estimation of Fuel Consumption in Rail Transportation, vol. II, Transportation Systems Center, prepared for Federal Railroad Administration (September 1977).

Hopkins, John B., Morrin E. Hazel, and Timothy McGrath, Railroad and the Environment: Estimation of Fuel Consumption in Rail Transportation, vol. III, Transportation Systems Center, prepared for Federal Railroad Administration (September 1978).

IBI Group, Indirect Energy in Transportation, prepared for Strategic Studies Branch of Transport Canada (March 1978).

Interstate Commerce Commission, Bureau of Economics, Circuity of Rail Carload Freight (April 1968).

Interstate Commerce Commission, Empty/Loaded Truck Miles on Interstate Highways During 1976 (April 1977).

Interstate Commerce Commission, Bureau of Accounts, Ratios of Empty to Loaded Freight Car-Miles by Type of Car and Performance Factors for Way, Through and All Trains Combined-1972 (December 1973).

Iowa Department of Transportation, Energy and Transportation for the Future (May 1977).

Leilich, R. H., and others (Peat Marwick Mitchell and Co.), Energy and Economic Impacts of Projected Freight Transportation Improvements, prepared for Transportation Systems Center (November 1976).

Maio, Domenic J., Freight Transportation Petroleum Conservation Opportunities--Viability Evaluation, Transportation Systems Center, U. S. Department of Transportation (March 1979).

Mays, R.A., Miller, M.P., and Schott, G.J., "Intercity Freight Fuel Utilization at Low Package Densities--Airplanes, Express Trains and Trucks," paper presented at the 55th Annual Meeting of the Transportation Research Board (January 1976).

Moon, Albert, Energy Study of Railroad Freight Transportation, SRI International, prepared for Energy Research and Development Administration (May 1977).

Morlak, Edward K., "An Engineering Analysis and Comparison of Railroad and Truck Line-Haul Work (Energy) Requirements," Transportation Research Board 55th Annual Meeting (January 1976).

National Highway Traffic Safety Administration, press release on Frederick Maryland road tests, 1980.

Office of Technology Assessment, A Technology Assessment of Coal Slurry Pipelines (March 1978).

Paxson, David S., "The Energy Crisis and Intermodal Competition," Transportation Research Record 758, Transportation Research Board, National Academy of Sciences (1980).

Pollard, John K., Changes in Transportation Energy Intensiveness, 1972-78, U.S. Department of Transportation, Transportation Systems Center (May 1980).

Pollard, John K., Indirect Energy Consumption in Truck and Rail Freight Transportation, U.S. Department of Transportation, Transportation Systems Center (January 1980).

Reebie Associates, An Improved Truck/Rail Operation: Evaluation of a Selected Corridor, prepared for the U.S. Department of Transportation, Federal Highway Administration (December 1975).

Reebie Associates, National Intermodal Network Feasibility Study, prepared for the U.S. Department of Transportation, Federal Railroad Administration (November 1975).

Rose, Axel, Energy Intensity and Related Parameters of Selected Transportation Modes: Freight Movements, Oak Ridge National Laboratories (June 1979).

Sebald, Anthony V., "Energy Intensity of Barge and Rail Freight Hauling," Center for Advanced Computation, University of Illinois at Urbana-Champaign (May 1974).

Simpson, David, "Energy and Labor Requirements for the Construction and Annual Operation of the Tennessee-Tombigbee Waterway Project," Center for Advanced Computation, University of Illinois at Urbana-Champaign.

Transportation Research Board, Energy Effects, Efficiencies, and Prospects for Various Modes of Transportation, National Cooperative Highway Research Program, National Research Council (1977).

United States Railway Association, personal communication from Larry Kaufer, Director of Operations Planning (1980).

Western Railroad Association, personal communication from Joseph Feeney, General Counsel (1979).

Zucchetto, James, S. Bayley, L. Shapiro, D. Man, and J. Nessel, "The Direct and Indirect Energy Costs of Coal Transport by Alternative Bulk Commodity Modes," International Journal of Resource Recovery and Conservation, vol. 5, pp. 161-177 (1980).

The **Chairman**. Congressman Williams?

STATEMENT OF HON. PAT WILLIAMS, A U.S. REPRESENTATIVE FROM THE STATE OF MONTANA

Mr. **Williams**. Thank you very much. I'm pleased to be here with you and the other members of the committee, as well as my friend and colleague, Senator Baucus.

The granting of Federal eminent domain rights to coal slurry companies is not a new issue. Congress has considered this approach to providing incentives for the construction of pipelines several times before and each time has rejected it. The rejections are understandable. Granting of the ultimate authority of eminent domain to private companies represents a long legislative reach and one that should be considered in all of its ramifications.

There are problems with this legislation, and I am sure that today's witnesses have and will address them. I will limit my remarks to what I believe to be one of the major flaws in the bill, the issue of water.

Water, of course, is a major concern to the West. Water is both our life blood and a commodity in short supply. The sponsors of the 1982 version of this legislation have sought to reassure the West that strong specific language put in this legislation will be enough to insure that States retain their right to adjudicate water.

Section 6 of this legislation is the bill's attempt to assure the continuing applicability of State law regarding water. Clearly, the language in section 6 represents a good faith attempt to protect State water law. The House version of this legislation contains even stronger language.

It is my belief that no language can be added to this legislation which will completely assure States' rights regarding water, if the Federal Government evokes the Commerce clause. There is no language precluding Federal preemption that will protect States' water rights if the Government falls back on the Federal good through free commerce. There are very few evidential findings, very little proof that has to be marshalled if the Federal Government chooses to exercise its rights under the Commerce clause.

Another important item regarding permitting and application of State law is that most Western States have not fully adjudicated or quantified their water rights. As such they are not in a position to allow water permits for coal slurry. Those States cannot know what quantity of water remains to be applied to a beneficial use.

In addition, this leaves out the consideration of any future use. Once you've transferred the water by coal slurry lines to another State, this preempts the future use of water for domestic purposes or for any other agricultural or industrial enterprise.

Let me address several specific concerns. One concern that has been raised over and over again when this legislation has been discussed, is the issue of a State's right to adjudicate water if it is detrimental to other States sharing the same water system. This problem is only increased when the water is in an underground aquifer such as the Madison formation, covering several States. In the past, when legislation of this type has been considered, there have always been amendments giving downstream States the rights to sign off on water use before a permit can be given for water use in a slurry pipeline. Any amendment of this type of course has a great impact on State water law.

Across the West there are presently attempts to have States that share water use enter into interstate compacts governing that water. This legislation will act as a major deterrent to the negotiation of these compacts. An upstream State will have little incentive to enter into a compact that could jeopardize a lucrative water sale to a coal pipeline company. Urged on by an increasing price for water and by an ever-increasing need for revenue, upstream States will be increasingly leery of limiting their right to adjudicate water. This problem will be particularly true in the case of underground aquifers, where there is little knowledge of either how these basins are replenished, or exactly what volume of water exists.

When hearings were held in the House on similar legislation, one of the issues discussed at length was the problems surrounding the South Dakota/Wyoming sale of water to the ETSI coal slurry pipeline company. Observers of this sale see what a profound effect it has had on water useage in both Wyoming and South Dakota. Only after Wyoming granted ETSI the right to draw water from the Madison formation was it discovered that this drawdown would have a detrimental effect on drinking water use by towns in South Dakota. It was clear that Wyoming rightfully granted the water use, but that did little to help the problems it was creating in South Dakota.

For quite some time now this question has gone unresolved. There are threats of law suits and all parties involved seem no closer to resolution of these problems. Quite simply, in the case of this legislation, we are putting the cart before the horse. We are urging that coal slurry pipelines be built by granting the precious power of Federal eminent domain and also then urging that the water be used in this effort. We are doing this before we know what effect it will have or from where the water will come.

Sorting out these questions is simply an unfair burden to place upon the States.

Another question that has been raised in our discussion of coal slurry pipelines is the right of any State to stop the use of water in a pipeline once it is discovered to be either detrimental or needed for more preferential use. It is certainly one thing to assure States' rights in the granting of water. It is another to give States the right to take that water back once it has begun to move in interstate commerce.

No utility or pipeline company is going to enter into a project where a State reserves the right to stop the flow of water at any future time.

In testimony before the House, Reese Taylor, Chairman of the Interstate Commerce Commission, observed that although he believed language in the House version of this legislation protected the States' rights to adjudicate water, it would not give the State the right to rescind permission for water use.

The nature of agreements that would be needed to encourage the building of a pipeline precludes the possibility of ever shutting the tap once that use has begun.

Another problem of great concern to me is what this type of legislation will do to the price of water in the West. Certainly, increased demand for water by capital intensive coal pipeline companies will serve to raise the price of water in any area where a pipeline is considered. This dramatic increase in price may have a detrimental effect on our farmers and ranchers who need inexpensive water for their survival.

The inability of coal pipelines to meet full common carrier obligation, lack of protection for consumers who would be most assuredly subject to increased utility rates because of potential runaway costs and technological problems, no provisions for the cleaning up of water at the terminus point, are issues of concern to me. All of these issue pale, however, in my mind when we begin to discuss the detrimental effect eminent domain legislation will have on not only our precious western water, but water used across this country.

Quite simply, Mr. Chairman, the thrust of my testimony is this: If this bill passes as is, the Federal Government will be assuming a major role in water use across this country. We will be opening a Pandora's box of lawsuits, interstate hostility, and destructive use of our limited water resource. It is my sincere hope that this committee will not allow this to happen, and will reject this legislation.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

I want to thank you both.

Congressman Williams, are you of the opinion that it's impossible to arrive at language that would protect State water rights?

Mr. WILLIAMS. I have not been assured by anyone, Mr. Chairman, that it is possible to write Federal legislation which will prevent the Federal Government from eventually falling back on the commerce clause. If I could be so assured of that then my objections to this legislation with regard to its detrimental effect on States rights over water, would be washed away. But I'm not assured of that.

And it seems to me incumbent upon those submitting this legislation to find a way to absolutely assure the States of their ultimate authority over their own water.

The CHAIRMAN. Do you share that feeling?

Senator BAUCUS. I don't know if this bill gives sufficient protection to the States. There are too many questions that come to my mind once the power is given, say by the Secretary, and even though the bill grants States procedural and substantive determination, it seems that the door is open. The State protection of water is not, in my judgment, sufficiently given in this bill.

The CHAIRMAN. I am concerned, the language which we write which we believe to be sufficient to protect the subject to court interpretation, the courts have not always been careful to follow up on the intent of Congress as those of us in Congress perceive that intent to be.

The CHAIRMAN. You and I could go through a litany of horrors from that standpoint at least, to the court saying in effect that may be your opinion of what the law means, but that is not our opinion of what the law means. And we go to great lengths to write careful legislative history which the courts are free to accept or reject, according to their own subjective evaluation of the ultimate desirable land. I wish it were not so, but I have observed that it is so.

We're trying to find a way in which we can give people in our States the assurance that the courts don't have the latitude to make that kind of finding in the future. We're still groping toward that language and we'll be developing other questions as we go through these hearings, listening to various experts testify on that regard.

I would have felt better had the administration not just hung its hat on the Federal-State principle but had analyzed the language before coming to a conclusion because at least an administrative finding on the record would be more persuasive for the future guidance of courts than would the testimony of other witnesses who perhaps had more subjective reasons to interpret the language in whichever fashion they find beneficial to themselves.

We will pursue that matter with both Department of the Interior and the Department of Energy and also with the Department of Justice so we can get on the record the opinion of the current administration with respect to the legal sufficiency of whatever language may be in the bill as it is moved.

I want to thank both of you for your testimony this morning.

Senator **Baucus**. Let me make one observation here. I see States representative on the annual average rainfall is about two or three or four times of what it is in eastern Montana. I make that point so that all of us in this room who are concerned with this bill understand how important water is to the parks. We just don't get much water.

The **Chairman**. I might say if the sponsors of the coal slurry pipeline really want to get it through in a hurry, all they have to do is put in two pipelines. One that brings the water from the point of the use of the coal and the other to carry the slurry downstream. If the economics are as good as some say, they can afford to do that. Perhaps the economics aren't that good, but they would resolve a lot of the problems if indeed they furnished the water which they use and didn't simply take it away from the States in which it could be put in the pipeline.

Mr. **Williams**. If I may, Mr. Chairman, I would suggest given the concern of the Congress in the past in passing this legislation, the quickest way for the coal slurry pipeline companies to begin to build the numbers of pipelines that they wish to cross this country is simply to go to the State legislatures and convince those legislatures to give the company that State's power of eminent domain and that State's water. And I submit the reason the coal slurry companies are before the Congress is because they know that the States will not grant the need of the eminent domain authority nor the water, and they want us to preempt that right.

The **Chairman**. I think it's fair to say, and I just looked at the map, some Western States and some quite dry States, have given the right of eminent domain. Wyoming, Colorado, Utah in particular. Senator Andrews testified earlier that North Dakota has State eminent domain statute. We will get into some of the restrictions on that and I guess it would also be fair to say that Oklahoma and northwestern Texas are not exactly flooded as a normal matter in annual rainfall. Both of those States have eminent domain statutes.

Thank you both very much.

Our next witness is the Honorable John Ashcroft, and John Sarcone.

I have the prepared statements of each of you gentlemen. I would hope in the interest of moving the hearing forward as rapidly as possible you could summarize the statements. Your statement together with the attachments thereto will be made a part of the record.

With that, Mr. Ashcroft, would you lead off?

STATEMENT OF JOHN ASHCROFT, ATTORNEY GENERAL, STATE OF MISSOURI; ACCOMPANIED BY STEVE KRSHMA, ASSISTANT ATTORNEY GENERAL

Mr. **Ashcroft**. Thank you.

I want to introduce Steve Krshma, assistant attorney general, who is with me at the hearing.

I appreciate the opportunity of appearing before the committee.

Our experience with pipeline potentials relate to the potential river diversions which would divert flows from the rivers which are important to a number of other jurisdictions outside the river basins for pipeline purposes. The State of Missouri has well over 500 miles of the Missouri River flowing through it. About 60 percent of our people drink water from the Missouri River, and it has other important uses, especially transportation.

The present proposal encouraging coal slurry pipelines is a radical restructuring of water use. Not for energy development, but for the purpose of transporting a single commodity, coal. We are not even of an understanding that this transportation is necessarily as energy efficient as existing transportation means as was pointed out in the testimony of Senator Baucus.

Section 6 of Senate bill 1844 purports to preserve the status of State water laws when dealing with coal slurry pipelines. However, the section ignores the fact that water is not usually a resource of any individual State, at least in many circumstances. There are many water resources in which several States share the benefits.

Representative Williams focused the attention of the committee on the problems that flow from the potential of one State diverting water or significantly impairing the use of other States downstream or by pumping out an aquifer which was relied upon by a number of jurisdictions. Recent experience shows when water is viewed as a single resource, coal slurry pipelines will play one State against another and I'm submitting the documents along with the testimony which will set forth a whole series of activities and examples of tactics and conduct employed by coal slurry pipelines to further its own interest at the expense of downstream water users who are down the chain of the water flow.

Under the continuing fiction that water resources for a coal slurry pipeline are a concern of only one State, the waters of a river basin can be diverted from uses far removed from that basin. I think it's very important that we understand we're talking about the potential of encouraging a means of water utilization which will divert water from basin usages to remote locations far outside the basin. Such a diversion can be carried out to the detriment of and in spite of objections by the affected States and that is very important for downstream States.

There are repeated calls for interstate compacts through much of the Nation which have previously been characteristic only in the western States. I think the compact idea is an excellent idea, but an incentive for water utilization such as that which would be provided by S. 1844 will not assist in providing initiatives and impetus toward those compacts, but would in fact encourage people to move ahead without such compacts.

There are, of course, a number of Federal ideas that have been promoted by the Department of Interior to market Missouri River water in particular, as a result of this program. Federal agencies are actively marketing Missouri River flows with no consideration of the adverse affects. One of the promotions which they have focused on have been the pipeline for coal slurry. I believe that such a promotion of the diversion of the Missouri River and other water resources outside the basin is against the interest of the States and is an intrusion on the part of the Federal Government of the States' customary authority to allocate water resources.

The legislation such as this which sponsors radical new water use can only encourage Federal agencies to further ignore existing law, and the agencies in their eagerness to market the Missouri River will use this bill as a carte blanche to give coal slurry pipelines preferential treatment.

We want to make it clear, and I hope the U.S. Congress will make it clear, that the use of Missouri River flows for coal slurry pipeline cannot be equated with or given priority over other beneficial water uses that have been long recognized and protected by congressional action.

Much has been said today on the issue of the threat to State control of water resources and whether or not the Commerce Clause can in fact be set aside by language in the bill. And if I had to draw any one conclusion from my understanding of this issue, it would be that such clauses inevitably are litigated and interpreted by the courts. The committee has already discussed the case of First Iowa which is about a 1946 case which in spite of very significant language in which the Congress sought to be deferential to the State water rights, the court simply set them aside and said they are in conflict with Federal requirements and might well block the Federal license and therefore indicated the State laws had been preempted.

More recently in February of this year the United States Supreme Court in the case of *New England Power* v. *New Hampshire and Massachusetts,* indicated that a time honored provision providing a State had an opportunity to preclude the export of power generated in hydraulic—facilities, would be stricken as a result of this potential conflict with the Commerce Clause, in spite of the fact that the federal authority originally had been very explicit in seeking to protect the interests of the States.

There is a case now pending in the U.S. Supreme Court, the *Sporhase* case from Nebraska, regarding the export of water from Nebraska to the neighboring State by an individual who owned property in both States. The case seeks to make a determination as to whether or not the Nebraska constitutional prohibition against such an export can in fact exist and can survive challenge when measured against the Commerce Clause of the United States.

Obviously, this case will not be conclusive or determinative of the issue. The litany of the cases simply suggest to me that these are litigated on a case-by-case basis. That the courts of the land have no real reluctance to supplant State potentials and enactments with their interpretation of the U.S. Commerce Clause, and I believe personally that it is at best conjecture to try and assume that any language can be written which would in fact be predictable in its ability to survive a challenge.

I think when you look at the New England power case you see a large investment of resource which was designed to achieve a purpose and when it came time for the State to exercise its prerogative to withdraw the benefit, the courts simply were overwhelmed by the commitment that had been made in the development of the resource and said that the Federal preemption made it impossible for the State to continue with an activity it thought it had the right to exercise for 30 or more years.

With these concepts in mind, there is a threat to State water rights that downstream States have an interest in protecting their ability to enjoy the continued flow of water which an incentive to sell, like a pipeline preferential treatment, would provide. That kind of threat is in fact a major problem for the States.

[The prepared statement of Mr. Ashcroft follows:]

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STATEMENT OF JOHN ASHCROFT, ATTORNEY GENERAL OF MISSOURI U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES HEARING ON S.1844, MAY 10, 1982

INTRODUCTION

I appreciate the opportunity offered by Senator McClure and the Senate Committee on Energy and Natural Resources to present my views on S.1844 which authorizes federal eminent domain powers for coal slurry pipelines. I specifically wish to address the problems which my state has encountered concerning water resources and coal slurry pipelines. Our experience has shown that coal slurry pipelines result in river flows being diverted out of their basin and away from existing and future needs of those downstream in the basin.

Such diversions of river flows are a vital concern to states such as Missouri. Our state has 553 miles of the Missouri River in or adjacent to it. More than 60 percent of Missourians live in counties boardering the water and many depend on it for drinking water, recreation, waste water assimulation and jobs in navigation, industry and agriculture.

The present proposal encouraging coal slurry pipelines is a radical restructuring of water use, not for energy development but for the purpose of transporting a single commodity, coal. However, this transportation use is not even as energy efficient as existing transportation means, such as railraod and barge lines. Thus, Missouri and any other state downstream from a coal slurry pipeline would find water, which would otherwise be available for traditional and beneficial uses, instead being taken for an inefficient transportation scheme with little benefit for the river basin as a whole. My concern here today is that vital water issues which are inherent to coal slurry pipelines are not addressed in S.1844.

WATER AS A SHARED RESOURCE

Section 6 of S.1844 purports to preserve the status of state water law when dealing with coal slurry pipelines. However, the language of Section 6 ignores the fact that water is not usually a resource of any one single state. More often than not, several states share in the benefits of and rights to the flows of a single river. Thus, within the Missouri River basin there are ten sovereign states, each with its own needs and requirements for the management of water resources.

Recent experience shows that when water is viewed as a single state resource, coal slurry pipelines will play one state against another. I am submitting documents along with this testimony which set forth one example of the tactics employed by a coal slurry pipeline to further its own interests at the expense of downstream water users.

Under the continuing fiction that water resources for coal slurry pipelines are the concern of only one state, the waters of a river basin can be diverted to uses far removed from that basin. Such a diversion can be carried out to the detriment of, and despite the objections of, other affected states. In spite of repeated calls for interstate compacts and the threat of litigation to resolve such issues, plans for diversions continue. Thus, the present language of S.1844 will not resolve state water issues. It will on the contrary complicate them and will insure years of nonproductive disputes and court suits.

EFFECT ON FEDERAL PROGRAMS

This fundamental misunderstanding as to the interstate nature of water resources will also perpetuate the destructive effect on a Department of Interior program to market Missouri River water. As a result of this program, federal agencies are either actively marketing Missouri River flows with no consideration of the adverse effects, or are shirking their statutory responsibilities to prevent such adverse effects. This also is discussed in more detail in the documents which are submitted with this testimony.

Legislation such as this which sponsors a radical new water use can only encourage federal agencies to further ignore existing law. The agencies, in their eagerness to market the Missouri River, will use this bill as a carte blanche to give coal slurry pipelines preferential treatment. It must be made clear that the use of Missouri River flows for a coal slurry pipeline cannot be equated with or given priority over the beneficial water uses long recognized and protected by Congressional action.

THREAT TO STATE CONTROL

On a different but still most important level, it must be recognized that S.1844's sponsorship of this new interstate water use could prevent states from controlling their own water resources. This may occur in spite of the bill's language which purports to preserve such state's rights. This was clearly demonstrated by the recent U.S. Supreme Court's decision in New England Power Company v. New Hampshire.* In that case the statutory language on state's rights was held insufficient to authorize a state prohibition against export of hydropower generated within that state.

In a similar manner, if a state wishes to prohibit the export of water for a coal slurry pipeline, this bill may offer little protection. Once Congress sponsors the development of coal slurry pipelines in interstate commerce, it may be impossible for a state to do anything except watch its water resources be piped away.

CONCLUSION

The overall effect of S.1844 on water resources will be disasterous. This legislation will complicate the abilities of the states to resolve their inter-basin and interstate water issues. Federal programs to market the Missouri River with no basis in law or fact will continue and even accelerate. States' rights over their most important natural resource, water, will be placed in severe jeopardy.

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*No. 80-1208, decided February 24, 1982

These issues are too complex to be resolved by the 23 lines in Section 6, which purports to preserve state water law. With the present transportation capacities of this nation, special consideration should not be given to a radical and destructive new water use which can only hurt those citizens who depend on the river flows of this nation.

JOHN C. DANFORTH
MISSOURI

United States Senate
WASHINGTON, D.C. 20510

February 3, 1982

Honorable James G. Watt
Secretary of the Interior
Department of the Interior
C Street Between 18th and 19th Streets, N.W.
Washington, D.C. 20240

Dear Mr. Secretary:

We are writing to express our very serious concern about the apparently imminent approval of an Industrial Water Service Contract between the United States and Energy Transportation Systems, Inc. (ETSI).

We believe that this contract -- which involves the sale of Missouri River water from the Oahe Reservoir in South Dakota and is potentially the first step toward withdrawal of one million acre-feet or more a year -- poses a significant threat to downstream states, especially Missouri. We further believe the interests of downstream states have not been adequately considered in the review process to date. We strongly urge that approval of the contract be delayed until these impacts can be properly assessed.

Detailed briefs have been prepared on this issue by the Attorney General of Missouri and by his counterparts in Iowa and Nebraska, and all have been supplied to Assistant Secretary Carruthers. The Missouri brief provides chapter and verse on our concerns, and we will not repeat it here. However, the following highlights deserve your immediate personal attention:

1. On January 14 the Bureau of Land Management approved a final environmental impact statement for the coal slurry pipeline that ETSI proposes to build. While we hold differing opinions on the merits of such pipelines, we are agreed that the environmental impact statement inadequately addresses the interest of downstream states and thus fails to meet the requirements of the National Environmental Policy Act.

Sixty percent of Missouri's populace depends on the Missouri River for its water supply. Communities all along the river rely on it for safe handling of their treated sewage. Farmers and other shippers depend on it to transport their goods. But the navigation

season was shortened by three weeks in 1981 because of drought, and the U.S. Army Corps of Engineers predicts the same will happen in 1982. The importance of this water is not limited to Missouri River shippers, either: between 1968 and 1980, the timely release of water from the main-stem reservoirs made possible an additional 268 days of navigation on the Mississippi River. Indeed, the Missouri contributes up to 60 percent of the flow of the Mississippi below St. Louis. Reduced Missouri River water levels also would affect the amount of inexpensive hydroelectric power that can be generated at the main-stem reservoirs.

The effect on these downstream uses of reduced Missouri River flows was ignored in the environmental impact statement, which accordingly is seriously deficient. The Ninth Circuit Court of Appeals, in discussing this very point -- an environmental impact statement for a proposed water service contract -- held in 1979 that "the government must decide among various potential users, and in doing so, must conjecture as to possible effects of commitment to one user against another."

We would note that the Missouri River Basin States Association, successor to the Missouri River Basin Commission, currently is preparing a detailed, computerized water accounting system for the basin in order to determine the effects of such proposed withdrawals. This system is expected to be fully operational later this year and could provide the information needed to evaluate the ETSI contract.

2. The environmental impact statement is further lacking in that it primarily evaluates a substantially different project than the one now planned. The vast bulk of the statement was premised on the assumption that water for the pipeline would be drawn not from the Oahe Reservoir but from groundwater in the Madison Formation. The Oahe alternative is reviewed only cursorily. In this connection, reliance on the 1977 Water for Energy study to determine water availability is both substantively and procedurally inadequate and unacceptable.

Furthermore, ETSI applied for the Oahe water from the Bureau of Reclamation while its sister agency, the Bureau of Land Management, was still working on the environmental impact statement, which involved an entirely different source of water. ETSI and the Bureau of Reclamation agreed to remain silent about this switch until the statement was published and the comment period was over. Only then did ETSI, the Bureau of Reclamation, and the State of South Dakota announce that Missouri River water was actually to be used. Consequently, parties directly affected by what to them is an entirely different project were precluded from participating in the environmental impact study process.

3. There are several basic questions about the federal government's authority to execute this contract. Congress has given the Secretary of the Army--along with the Bureau of Reclamation--the authority to sell surplus water. The law further stipulates that "no contracts for such water shall adversely affect then existing uses of such water." (33 U.S.C. 708) Clearly, no such finding has been or can be made. The effect of water withdrawals on hydroelectric power, for example, is indisputably negative. In addition, no water contract can be made unless the Secretary of the Interior judges that "it will not impair the efficiency of the project for irrigation purposes." (43 U.S.C. 485h(c)) This contract is very likely to impinge on future demands on the river for irrigation purposes.

Also, we do not believe that ETSI's removal of water from the basin for use as a transportation medium qualifies as a beneficial consumptive use as described in 33 U.S.C. 701-1b, and it thus falls completely outside the priority system established therein. Indeed, a modification of the Oahe project to accommodate this use would seriously affect the purposes for which the project was authorized, and consequently it requires the approval of Congress. (43 U.S.C. 390b(d))

Furthermore, it is our understanding that the Department of the Interior continues to adhere to principles set out in a lapsed Memorandum of Understanding between the Secretaries of the Interior, the Army, and Energy. This memorandum provides that contracts which would reduce the quantity of power generated shall not be executed unless all three Secretaries determine that the proposed marketing is a beneficial use of the water which should take precedence over hydroelectric power generation. We believe such a finding cannot and should not be made.

In summary, we request that you treat this letter as part of the environmental impact statement appeal process and also as part of the Industrial Water Service Contract review process. We believe that the substantial deficiencies of the environmental impact statement, together with the serious legal questions involved in the contract, compel further consideration of this matter. We strongly urge you to reissue the environmental impact statement as a draft and delay approval of the ETSI contract until such time as these issues can be resolved.

Sincerely,

John C. Danforth
United States Senator

W L Clay
William (Bill) Clay
Member of Congress

Tom Eagleton
Thomas F. Eagleton
United States Senator

Dick Gephardt
Richard A. Gephardt
Member of Congress

Ike Skelton
Ike Skelton
Member of Congress

Dick Bolling
Richard Bolling
Member of Congress

Tom Coleman
E. Thomas Coleman
Member of Congress

W Gene Taylor
Gene Taylor
Member of Congress

Wendell Bailey
Wendell Bailey
Member of Congress

Harold L Volkmer
Harold L. Volkmer
Member of Congress

Bill Emerson
Bill Emerson
Member of Congress

cc: Mr. Garrey E. Carruthers
Mr. Robert N. Broadbent
Mr. Robert F. Burford

JOHN C. DANFORTH

United States Senate
WASHINGTON, D.C. 20510

February 3, 1982

Honorable John O. Marsh, Jr.
Secretary of the Army
The Pentagon
Washington, D. C. 20310

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Furthermore, ETSI applied for the Oahe water from the Bureau of Reclamation while its sister agency, the Bureau of Land Management, was still working on the environmental impact statement, which involved an entirely different source of water. ETSI and the Bureau of Reclamation agreed to remain silent about this switch until the statement was published and the comment period was over. Only then did ETSI, the Bureau of Reclamation, and the State of South Dakota announce that Missouri River water was actually to be used. Consequently, parties directly affected by what to them is an entirely different project were precluded from participating in the environmental impact study process.

It is our understanding that the Corps of Engineers is required to undertake an environmental review as part of its permitting process pursuant to Section 10 and other provisions of the Rivers and Harbors Act of 1899 and pursuant to Section 404 and other provisions of the Clean Water Act. In light of the above concerns, and in light of your statutory duty to maintain navigation on the Missouri and Mississippi Rivers, we believe that the Corps should undertake a full environmental impact study before issuance of any permits--particularly, before issuance of an intake permit at the Oahe Reservoir.

3. There are several basic questions about the federal government's authority to execute this contract. Congress has given the Secretary of the Army--along with the Bureau of Reclamation--the authority to sell surplus water. The law further stipulates that "no contracts for such water shall adversely affect then existing uses of such water." (33 U.S.C. 708) Clearly, no such finding has been or can be made. The effect of water withdrawals on hydroelectric power, for example, is indisputably negative. In addition, no water contract can be made unless the Secretary of the Interior judges that "it will not impair the efficiency of the project for irrigation purposes." (43 U.S.C. 485h(c)) This contract is very likely to impinge on future demands on the river for irrigation purposes.

Also, we do not believe that ETSI's removal of water from the basin for use as a transportation medium qualifies as a beneficial consumptive use as described in 33 U.S.C. 701-1b, and it thus falls completely outside the priority system established therein. Indeed, a modification of the Oahe project to accommodate this use would seriously affect the purposes for which the project was authorized, and consequently it requires the approval of Congress. (43 U.S.C. 390b(d))

Furthermore, it is our understanding that the Department of the Interior continues to adhere to principles set out in a lapsed Memorandum of Understanding between the Secretaries of the Interior, the Army, and Energy. This memorandum provides that contracts which would reduce the quantity of power generated shall not be executed unless all three Secretaries determine that the proposed marketing is a beneficial use of the water which should take precedence over hydroelectric power generation. We believe such a finding cannot and should not be made.

In summary, we request that you defer approval of the pending Industrial Water Service Contract. We ask that you direct the Corps of Engineers to undertake a complete study of the environmental impact of this project, with emphasis on the effect of diversion of Missouri River water from the Oahe Reservoir on downstream states. We believe that the substantial deficiencies of the existing environmental impact statement, together with the serious legal questions involved in the contract, compel further consideration of this matter.

Sincerely,

Jack Danforth
John C. Danforth
United States Senator

W L Clay
William (Bill) Clay
Member of Congress

Tom Eagleton
Thomas F. Eagleton
United States Senator

Dick Gephardt
Richard A. Gephardt
Member of Congress

Ike Skelton
Ike Skelton
Member of Congress

Dick Bolling
Richard Bolling
Member of Congress

Tom Coleman
E. Thomas Coleman
Member of Congress

Gene Taylor
Gene Taylor
Member of Congress

Wendell Bailey
Wendell Bailey
Member of Congress

Harold L Volkmer
Harold L. Volkmer
Member of Congress

Bill Emerson
Bill Emerson
Member of Congress

cc: Lt. General J. K. Bratton
Mr. William R. Gianelli

JOHN C. DANFORTH
[illegible]

United States Senate
WASHINGTON, D.C. 20510

February 3, 1982

Honorable John R. Block
Secretary of Agriculture
Department of Agriculture
Fourteenth Street and Independence
  Avenue, S.W.
Washington, D.C. 20250

Dear Mr. Secretary:

We are writing to express our very serious concern about a recently approved environmental impact statement dealing with a proposed coal slurry pipeline to be built by Energy Transportation Systems, Inc. (ETSI).

We believe that this project -- which involves the sale of Missouri River water from the Oahe Reservoir in South Dakota and is potentially the first step toward withdrawal of one million acre-feet or more a year -- poses a significant threat to downstream states, especially Missouri. We further believe the interests of downstream states have not been adequately considered in the review process to date. We strongly urge the environmental impact statement be reissued as a draft so that these impacts can be properly assessed.

Detailed briefs have been prepared on this issue by the Attorney General of Missouri and by his counterparts in Iowa and Nebraska. The Missouri brief, enclosed herein, provides chapter and verse on our concerns, and we will not repeat it here. However, the following highlights deserve your immediate personal attention:

1. On January 14 the U.S. Forest Service approved a final environmental impact statement for the coal slurry pipeline that ETSI proposes to build. While we hold differing opinions on the merits of such pipelines, we are agreed that the environmental impact statement inadequately addresses the interest of downstream states and thus fails to meet the requirements of the National Environmental Policy Act.

Sixty percent of Missouri's populace depends on the Missouri River for its water supply. Communities all along the river rely on it for safe handling of their treated sewage. Farmers and other shippers depend on it to transport their goods. But the navigation

season was shortened by three weeks in 1981 because of drought, and the U.S. Army Corps of Engineers predicts the same will happen in 1982. The importance of this water is not limited to Missouri River shippers, either: between 1968 and 1980, the timely release of water from the main-stem reservoirs made possible an additional 268 days of navigation on the Mississippi River. Indeed, the Missouri contributes up to 60 percent of the flow of the Mississippi below St. Louis. Reduced Missouri River water levels also would affect the amount of inexpensive hydroelectric power that can be generated at the main-stem reservoirs.

The effect on these downstream uses of reduced Missouri River flows was ignored in the environmental impact statement, which accordingly is seriously deficient. The Ninth Circuit Court of Appeals, in discussing this very point -- an environmental impact statement for a proposed water service contract -- held in 1979 that "the government must decide among various potential users, and in doing so, must conjecture as to possible effects of commitment to one user against another."

We would note that the Missouri River Basin States Association, successor to the Missouri River Basin Commission, currently is preparing a detailed, computerized water accounting system for the basin in order to determine the effects of such proposed withdrawals. This system is expected to be fully operational later this year and could provide the information needed to evaluate the ETSI contract.

2. The environmental impact statement is further lacking in that it primarily evaluates a substantially different project than the one now planned. The vast bulk of the statement was premised on the assumption that water for the pipeline would be drawn not from the Oahe Reservoir but from groundwater in the Madison Formation. The Oahe alternative is reviewed only cursorily. In this connection, reliance on the 1977 Water for Energy study to determine water availability is both substantively and procedurally inadequate and unacceptable.

Furthermore, ETSI applied for the Oahe water from the Bureau of Reclamation while its sister agency, the Bureau of Land Management, was still working on the environmental impact statement, which involved an entirely different source of water. ETSI and the Bureau of Reclamation agreed to remain silent about this switch until the statement was published and the comment period was over. Only then did ETSI, the Bureau of Reclamation, and the State of South Dakota announce that Missouri River water was actually to be used. Consequently, parties directly affected by what to them is an entirely different project were precluded from participating in the environmental impact study process.

In summary, we request that you treat this letter as part of the environmental impact statement appeal process. We believe that the substantial deficiencies of the environmental impact statement compel further consideration of this matter. We strongly urge you to reissue the environmental impact statement as a draft until such time as these issues can be resolved.

Sincerely,

John C. Danforth
United States Senator

W L Clay
William (Bill) Clay
Member of Congress

Tom Eagleton
Thomas F. Eagleton
United States Senator

Dick Gephardt
Richard A. Gephardt
Member of Congress

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E. Thomas Coleman
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Gene Taylor
Gene Taylor
Member of Congress

Wendell Bailey
Wendell Bailey
Member of Congress

Harold L Volkmer
Harold L. Volkmer
Member of Congress

Bill Emerson
Bill Emerson
Member of Congress

cc: John B. Crowell, Jr.

Enclosure

Attorney General of Missouri

POST OFFICE BOX 899
JEFFERSON CITY, MISSOURI 65102

JOHN ASHCROFT
ATTORNEY GENERAL

WAINWRIGHT STATE OFFICE BLDG.
111 NORTH 7TH STREET, SUITE [illegible]
ST. LOUIS, MISSOURI [illegible]
(314) [illegible]

January 8, 1982

Mr. Joseph B. Marcotte, Jr.
Acting Regional Director
Bureau of Reclamation
Post Office Box 2553
Billings, Montana 59103

Re: Proposed Industrial Water Service Contract
Federal Register, Volumne 46, No. 205, Page 52040
October 23, 1981

Dear Mr. Marcotte:

The State of Missouri welcomes this opportunity to comment on the proposed Industrial Water Service Contract between the United States and Energy Transportations Systems, Inc. (ETSI). This contract, with its withdrawal of water from the Missouri River Basin, is one of immense importance to downstream states such as Missouri.

This importance is based not upon the withdrawal of twenty or fifty thousand acre-feet from the Missouri River, but rather, that this is the beginning of wholesale withdrawals of one million acre-feet or more. The program for withdrawal of one million acre-feet was originally designed in 1977 by the Bureau of Reclamation for energy development. Now, in fulfillment of that original program, we see this contract for water to be transported out of the basin for a coal slurry pipeline. 1/ In addition to this one million acre-feet for coal production, there are possibilities of even larger water sales in the future for huge oil shale projects.

Legitimate demands for industrial use of Missouri River water must, of course, be considered. Such use cannot be justified under the hurried, unilateral, even secretive, conditions that have characterized the beginning of this program. Less than half a year ago this program was only a matter of planning and superficially discussed alternatives. Now, in the space of a few short months, we find the program being rushed into implementation without any attempt to consult affected parties such as the State of Missouri and other downstream states.

1/ It is claimed that there is precedent for the present withdrawal proposal based upon industrial water service from Lake Sakakawea in North Dakota. However, those withdrawals are significantly different. This proposed contract provides for use of water as a transport medium resulting in an export of water out of the Missouri River Basin with an ultimate destination in far distant water-rich states. The Lake Sakakawea withdrawals benefit in-basin interests and are used as an integral part of the industrial process for coal gasification, rather than as a means of transport.

While the present hurried schedule, as set by the Bureau of Reclamation, precludes any in-depth analysis, the State of Missouri does object to the proposed water contract upon several grounds. First, the opportunity for public involvement in this matter has been purposely limited so as to preclude any effective comment or analysis. Secondly, the downstream impacts of this water withdrawal program have not been adequately analyzed. Finally, federal authority over the Oahe Reservoir is not being properly exercised as required by the Flood Control Act of 1944 and the Reclamation Act of 1939.

LIMITATION OF PUBLIC INVOLVEMENT

The Bureau of Reclamation has consistently complied with the desires of ETSI to limit public notice and involvement. This cooperation first took the form of suppressing any mention of proposed water withdrawal, and then, once it became public, rushing the contract through the approval process without adequate public involvement. The overall picture is one of a federal agency which is more interested in satisfying its "client" than in discharging its proper public duties.

The environmental impact statement upon which the Bureau of Reclamation relies in this case describes the use of ground water from the Madison Formation as the proposed action. 2/ This was based upon the representations of ETSI to the Bureau of Land Management which published the EIS. However, one month before this EIS was published in final form, ETSI applied to the Bureau of Reclamation for this water to be withdrawn from the Oahe Reservoir, rather than the Madison Formation. 3/ The Bureau of Reclamation agreed to begin the negotiation process and notified ETSI that they had forwarded to Washington, D. C. a Federal Register notice and proposed news release. 4/ However, based upon a telephone request from the vice president of ETSI, the Bureau of Reclamation sent a rushed message to Washington, so as to delay publication of any notice until after the final EIS was published. 5/

2/ Department of the Interior Final Environment Impact Statement on the Energy Transportation Systems, Inc. Coal Slurry Pipeline Transportation Project, Bureau of Land Management, July, 1981.

3/ Letter from E. J. Wasp, Executive Vice President - Energy Transportaion Systems, Inc. to Joseph Marcotte, Acting Regional Director, Bureau of Reclamation, Billings, Montana, June 22, 1981.

4/ Letter from D. S. Lauver, Acting Regional Director, Bureau of Reclamation, Billings Montana, to E. J. Wasp, Executive Vice President, Energy Transportation Systems, Inc., July 1, 1981.

5/ Faxogram from Acting Reginal Director, Bureau of Land Management, Billings Montana, to Commissioner, Bureau of Land Management, Washgington, D. C., July 8, 1981.

As a result, the Bureau of Reclamation aided ETSI in perpetuating the myth that the Madison Formation was to be the proposed water source for the coal slurry pipeline. Even though the Bureau of Reclamation knew for a month beforehand that the EIS was no longer accurate, it gave no notice of this to its sister agency the Bureau of Land Management or any other interested party. Thus, when the final EIS was published on July 17, 1981, the Oahe withdrawal was still only discussed as an alternative. Not until the EIS comment period closed on September 16, 1981, did the Bureau of Reclamation receive the go-ahead to publicize its intent to withdraw water from the Oahe Reservoir. 6/ It is also interesting to note that that same date, September 16, 1981, was when South Dakota first announced its secret negotiations with ETSI and a special legislative session was called to authorized the contract. 7/

This cooperative relationship between ETSI and the Bureau of Reclamation has continued throughout the negotiation process on this water withdrawal contract. When the public meeting on this subject, which was scheduled for November 24, 1981, was cancelled due to bugetary restrictions, it was to be rescheduled in January, 1982. 8/ However, when ETSI and the State of South Dakota objected to such a delay, the Bureau of Reclamation immediately rescheduled the meeting for December 10. 9/ The Bureau claimed that no Federal Register notice was necessary and that it was doin this just to be cooperative with ETSI and the State of South Dakota. 10/

The rushed schedule is reflected even in the draft contract itself. The water permit from the State of South Dakota is a condition precedent and and is to be attached and incorporated into the water withdrawal contract. 11/ However, since the permit has yet to be issued, there is nothing attached or incorporated into the draft contract. The Bureau of Reclamation still insists that the public comment on this incomplete draft, even though one of its crucial portions does not even exist ye

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6/ Letter from Acting Regional Director, Bureau of Land Management, Billings Montana, to Commissioner, Bureau of Land Management, Washington, D. C., September 17, 1981.

7/ Letter from Acting Regional Director, Bureau of Land Management, Billings, Montana, to Commissioner, Bureau of Land Management, Wasington, D. C., September 17, 1982.

8/ Telephone conversation between William Crosby, Chief, Economics and Repayment Branch, Water and Lands Division, Bureau of Reclamation, Billings, Montana, and Stephen P. Krchma, Missouri Assistant Attorney General, November 23, 1981.

9/ News release, Bureau of Reclamation, Billings, Montana: Public meeting on ETSI water contract rescheduled for December 10, 1981, dated November 27, 1981.

10/ Telephone conversation between William Crosby, Chief, Economics and Repaym Branch, Water and Lands Division, Bureau of Reclamation, Billings, Montana, and Stephen P. Krchma, Missouri Assistant Attorney General, December 1, 198

11/ Industrial Water survey contract between the United States and ETSI pipeline project joint venture, UM draft 10-20-81/revised 11-16-81, article 1.

The hurried schedule which the Bureau of Reclamation is following in this case was evident during the course of the public meeting. At first it was stated that the contract and any comments upon it would be forwarded to Washington, D. C., for review in early February, 1982. Later, at the same meeting, when strong opposition had become evident, Reclamation officials stated that the contract and its comments would be forwarded to Washington as soon as possible after the January 10, 1982 close of the comment period.

The foregoing actions by the Bureau of Reclamation have allowed ETSI to first, hide its true intentions until the final EIS had been published and the comment period closed, and second, jam the proposed contract through the public comment period in a hurried and incomplete manner.

INADEQUATE ANALYSIS OF DOWNSTREAM IMPACTS

The Missouri River is essentially a "controlled stream" where the annnual flow is stored in reservoirs and released at a scheduled and controlled rate to serve various purposes. This means that the people of Missouri and other downstream states, have a strong stake in the schedule and amount of water available for reservoir releases.

According to the latest records of the U. S. Geological Survey, the average annual flow at St. Joseph, Missouri is 28,610,000 acre-feet. This means the average annual loss at this point due to withdrawals of one million acre-feet will be 3.5%. This figure becomes even more significant when we remember that the real flow of the river is considerably below average during the winter season and can be lower still during periods of drought and sparse rainfall. Thus, an ongoing withdrawal of one million acre-feet out of the Missouri River basin will often reduce the flows at St. Joseph, Missouri by far more than even the annual average of 3.5%. This can only intensify adverse low water impacts for downstream states.

Missouri's interests as such a downstream state are obvious. The length of the Missouri River and the amount of water which it carries through the state can be seen by glancing at any map. Some sixty percent of Missouri's populace depends on the Missouri River for their water supply. The Missouri communities which line the river as it flows through the state depend on these waters for safe handling of their treated sewage.

The effects on these and other water related needs are unknown for a program of large scale water withdrawals as implemented by this contract. The environmental impact statement, as prepared by the Bureau of Land Management and adopted by the Bureau of Reclamation for the purposes of this contract, does not discuss downstream effects. The closest the statement comes is a reference to another environmental impact statement, this one done by the Bureau of Reclamation in 1977, entitled "Water for Energy, Missouri River Reservoirs." 12/ It is this 1977 environmental impact statement which discusses the program of diverting one million acre-feet of Missouri River water away from its basin and into industrial use. Yet throughout this 1977 study, there is little mention of the downstream effects of such a diversion of the river's flow away from the users who have traditionally enjoyed its benefits.

12/ Department of the Interior, Final Environmental Impact Statement, Water For Energy - Missouri River Reservoirs, prepared by Bureau of Reclamation, December 1, 1977.

The Missouri Department of Natural Resources has identified at least seven genera categories of adverse impacts upon downstream states from a one million acre-feet withdrawal:

1. Drinking water supplies can suffer due to projected future increases in total dissolved solids even with present river flows. Reduction of flows necessarily translates into even greater increases in total dissolved solids and thus increas the possible threat to public health.

2. The safe discharge of treated municipal sewage into the Missouri River requir certain minimum levels of flow in the river. It is already projected that such levels may not be available during portions of a winter season. Withdrawal of a million acre-feet will only worsen the situation.

3. Fish and wildlife habitats would suffer, particularly in terms of decreased water quality and very low flows in the winter.

4. Reduced flows in the river would mean that large users of cooling water, such as power plants, may violate water quality standards. This is in sharp contrast to present water quality conditions. For example, water quality considerations were partially responsible for Missouri River locations in our state being selected as desirable power plant sites by a national utility survey.

5. The navigation season would be shortened. If the river flows are depleted, the season must be cut back. It is already projected that major droughts could even make navigation season so short that the barge lines could not operate at all. Such water withdrawals could be important, not only for navigation on the Missouri River, but also for the Mississippi River at the Port of St. Louis. The present regulated flows of the Missouri have been found to have contributed an additional two hundred sixty-eight days of navigation at St. Louis during the period 1968 to 1980. 13/ Thus, depletion of such flows could adversely affect navigation through the Port of St. Louis.

6. Cities and industries with river intakes will find it difficult to withdraw water during low flow periods due to mechanical limitations of intake structures. Already, the low water levels of the 1970's caused considerable problems within our state. This inability to obtain sufficient water could only be mitigated by costly modification of all such intake structures.

7. Hydropower generation in downstream states would decrease with reduced flows. While the principal power generation from mainstem dams in Missouri is not supplied directly to Missouri users, income from the sale of hydropower is necessary to pay the government's debt for construction at mainstem reservoirs. Reduced flows through these generating stations would mean loss of income from power sales and thus longer terms of indebtedness.

Without further investigation of these and other downstream effects, this contract and the program which it represents, cannot comply with the National Environmental Policy Act of 1969. Unsupported claims that there are no significant downstream effect are a frustration rather than fulfillment of the NEPA principles. A program which consumes such a significant portion of a resource as basic as water must be planned and

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13/ Missouri River Contributions During Periods of Low Flow on the Mississippi River, Phase I Report, U. S. Army Engineer Division, Missouri River, Corps of Engineers, Omaha, Nebraska, August, 1981.

implemented so as to fulfill the NEPA policy of encouraging productive and enjoyable harmony between man and his environment.

One obvious method to assess the effects of the proposed water withdrawal program is the present study being prepared by the Missouri River Basin States Association. 14/ This detailed analysis of available water will result in a computerized scheme for measuring impacts of future consumptive water use in the Missouri River Basin. Without such a study, it is impossible to accurately assess the important impacts and interrelationships of the thousands of downstream users in the Missouri River Basin.

Furthermore, the environmental impact statements which presently exist have not fully examined all the necessary alternatives. There are questions yet unanswered on such basic issues as minimizing effects during low water periods by timing withdrawals or supplementing them from other water sources. The possibility of a waterless coal slurry pipeline deserves further exploration. These, and other alternatives, must be studied more closely before a program of this scale can be initiated. The rushed schedule of the last several months is hardly the proper method of thinking through these very difficult, yet essential, issues.

PROPER EXERCISE OF FEDERAL AUTHORITY

In addition to the factual issues as outlined above, there are basic questions of the federal government's authority to execute this contract. While the time to analyze these issues has been severely curtailed by the manipulations of public notice as outlined above, several general issues are obvious. In section 6 of the Flood Control Act of 1944, Congress granted to the Secretary of the Army, not the Bureau of Reclamation, authority to market water from federal reservoirs with the explicit restriction that "no contracts for such water shall adversely affect then existing lawful uses of such water." 15/ Other than the general and often unsubstantiated conclusions referenced above concerning downstream affects, there has been no study which shows that existing lawful uses of Missouri River water will not be adversely affected by the withdrawal of a million acre-feet. This requirement that withdrawal of such water not affect existing lawful uses is clearly emphasized elsewhere in the Flood Control Act of 1944. For instance, in section 1(b), various priorities of water use are set forth. 16/ None of these contemplate water being transported out of the basin to be used as a transportation medium. This is especially true when the water so transported will ultimately be discharged in water-rich areas of far distant states. To use the water in this manner would require additional Congressional legislation.

The Bureau of Reclamation has also made an explicit decision that such water withdrawals take precedence over hydropower generation. 17/ Given the explicit Congressional desire for the generation of hydropower, as set forth in the Flood Control Act of 1944 and Reclamation Act of 1939, this priority of water as a transportation medium has no authority.

14/ The Missouri River Basin Water Accounting System, Missouri River Basin Commission, Omaha, Nebraska, September, 1981.

15/ 33 U.S.C. Section 709

16/ 33 U.S.C. Section 701-1(b)

17/ Letter from Joseph B. Marcotte, Jr., Acting Regional Director, Bureau of Reclamation, Billings, Montana, to Robert L. McPhail, Administrator, Western area power administration, Golden, Colorado, dated November 9, 1981.

CONCLUSION

The foregoing comments on the presently proposed water withdrawals does not mean that the State of Missouri opposes energy development or appropriate uses of the Missouri River. However, such development and any water uses devoted to it must be carefully planned and implemented. Furthermore, this must be done in consultation with all Missouri River basin states, and not simply those who stand to profit. Compliance with the National Environmental Act, as well as the Flood Control Act of 1944 and Reclamation Act of 1939, will help ensure that the legal interests of all those who depend upon the Missouri River will be respected. Until the downstream effects of this program are fully analyzed, and the issues of legal authority over the reservoir water are resolved, this present contract must not be executed.

Sincerely,

JOHN D. ASHCROFT
Attorney General

Stephen Krchma

Stephen P. Krchma
Assistant Attorney General

SPK:sp
cc: The Honorable Gary E. Carruthers
Assistant Secretary - Land and Water Resources
Department of the Interior
Washington, D. C. 20240

The **CHAIRMAN**. Thank you very much.

Mr. Sarcone, I have your entire statement placed in the record. I would invite you to summarize.

STATEMENT OF JOHN P. SARCONE, ASSISTANT ATTORNEY GENERAL, ENVIRONMENTAL PROTECTION DIVISION, STATE OF IOWA

Mr. **SARCONE**. Thank you.

The State of Iowa is vitally interested in the allocation and use of waters of the Missouri River. S. 1844 may adversely affect this interest of the State by encouraging coal slurry pipeline construction. Encouragement of this type of transportation medium may well cause a trend to the movement of large bodies of water from arid to wet regions of the country. Coal slurry pipelines, unlike barge navigation, consume streamflow and preclude use of the diverted waters for navigation, hydropower generation, and other downstream uses.

The State of Iowa is concerned about preservation of the water law of the State of origin, which section 6 of this bill attempts to preserve. However, we question the adequacy of the provision to accomplish its purposes, but will today address briefly our concerns about the failure of section 6 to expressly preserve existing Federal law. The State of Iowa is concerned that any coal slurry pipeline bill preserve existing laws concerning interstate allocation of waters and the use of waters in the Missouri River reservoirs.

Under section 6(c) of this bill, it refers to interstate compacts governing the appropriation, use, or diversion of water.

At the present time there is no interstate compact governing the appropriation, use or diversion of water from the Missouri River or its mainstem reservoirs. Any bill intended to authorize eminent domain for coal slurry pipelines without affecting water rights should specifically preserve all laws governing interstate allocation of waters and not solely interstate compacts.

Additionally, under the Flood Control Act of 1944 which authorized the Missouri River reservoirs limitations on Federal control reservoir systems were imposed Any bill concerning the coal slurry pipelines, which by their nature require the diversion of water, should expressly preserve and protect existing Federal law governing the use of waters stored in Federal reservoirs.

On page 3 of our statement we refer to section 5 and it should be section 6.

Section 6 of the Flood Control Act authorizes the Secretary of the Army to market surplus water for domestic and industrial uses but specifically provides that such marketing contracts shall not adversely affect then existing uses.

The Missouri River reservoirs are under the control of the Corps of Engineers, and they are the body that determines what surplus water is. At the present time the Department of Interior is proposing a program for industrial water marketing from Missouri River reservoirs without any consideration of the limitations of section 6. The Department of Interior's water marketing program adversely affects hydropower generation and navigation, for which specific purposes the project was authorized. The coal slurry pipelines would result in a significant proportion of this lost energy. Yet pipelines do not offset the lost energy generation since the coal will be moved by other means.

The State of Iowa is concerned that future diversions of Missouri River water for coal slurry pipelines cumulatively with industrial marketing contracts could eliminate navigation on the river by the year 2000. Since Iowa is the largest exporting State of agricultural products and relies heavily on its transportation industry, it is concerned about the adverse impacts this bill might have on barge navigation and the railroad industry, and this could well cause an increase in the delivery costs of agricultural products at the expense of America's consumers.

We believe that Congress carefully protected the interests of the States in sections 1 and 6 of the Flood Control Act of 1944. A primary purpose of that law was to protect and preserve the States interests in the development and use of watersheds within their borders.

Section 6 limited the sale of stored waters for municipal or industrial use to those which were surplus to project functions and which would not adversely affect existing uses. The Secretary of Interior has authority only over reclamation and irrigation works on the Missouri River.

Section 8 and 9(c) of the Flood Control Act of 1944. The Secretary is, however asserting authority to market stored waters from reservoirs under the control of the Corps of Engineers without the limitations contained in section 6 and despite adverse effect on specifically authorized reservoir functions.

The State of Iowa is concerned that the Department of Interior will continue to engage in water marketing contracts with uses inconsistent with the Flood Control Act of 1944, without consideration of the interest of other users of the Missouri River.

These legal and factual questions concerning water allocation are complex. We would ask that Congress not take any action which could potentially affect the use of Missouri River waters in any manner other than that provided by existing State and Federal law.

Thank you for allowing me to testify.

The CHAIRMAN. Thank you very much for your statement. Your statement and the exhibits will be made part of the record.

[The prepared statement of Mr. Miller follows:]

WRITTEN STATEMENT OF THOMAS J. MILLER,
Attorney General of Iowa, Concerning S. 1844,
Before the Senate Committee on Energy and
Natural Resources,
May 10, 1982

The State of Iowa is vitally interested in the allocation and use of waters of the Missouri River. S. 1844, a bill concerning coal distribution and utilization, may adversely affect this interest of the State by encouraging coal slurry pipeline construction. As noted in the environmental impact statement prepared for the E.T.S.I. coal slurry pipeline project, encouragement of this transportation medium may well cause a trend to the movement of large volumes of water from arid to wet regions of the country. The environmental impacts of such would be significant but have not been evaluated.[1] Coal slurry pipelines, unlike barge navigation, consume streamflow and preclude use of the diverted waters for navigation, hydropower generation, and other downstream uses.

The E.T.S.I. pipeline project and other anticipated pipelines would divert water from the Missouri River and transport the water out of the State of origin for injection into a coal slurry pipeline to transport coal to another region. The State is concerned about preservation of the water law of the State of origin, which section 6 of the bill attempts to preserve. We question the adequacy of this provision to accomplish its purposes but will today address briefly our concerns about the failure of section 6 to expressly preserve existing federal law. The State of Iowa is concerned that any coal slurry pipeline bill preserve existing laws concerning interstate allocation of waters and the use of waters in the Missouri River reservoirs. The preservation clause of the bill simply does not address the laws which are of primary relevance to Missouri River water use.

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[1] Increased movement of coal by pipeline could result in a trend to move large volumes of water from areas where water is scarce to areas where water is more abundant. This would have significant, undetermined impacts on water-scarce areas.

Department of the Interior, Final Environmental Impact Statement on the Energy Transportation Systems, Inc. Coal Slurry Pipeline Transportation Project (July 1981) (elsewhere cited as Pipeline E.I.S.), ¶ 5.B, p. 5-29.

Section 6(c) states:

> Nothing in this Act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

There is no interstate compact governing the appropriation, use or diversion of water from the Missouri River or its mainstem reservoirs. The allocation of waters between States is therefore governed by the doctrine of equitable apportionment as applied by the United States Supreme Court.[2] Any bill intended to authorize eminent domain for coal slurry pipelines without affecting water rights should specifically preserve all laws governing interstate allocation of waters and not solely interstate compacts.

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[2] See, e.g., Nebraska v. Wyoming, 325 U.S. 589 (1944).

Additionally the statute authorizing the Missouri River reservoirs, the Flood Control Act of 1944, 58 Stat. 887, imposes limitations on federal control of the reservoir system. These limitations were imposed to protect the interests of the States, to protect existing uses of water from adverse effects of industrial water marketing, and to insure that the reservoirs are used for the purposes for which the project was authorized. These limitations are reasonable and were adopted after vigorous Congressional debate. Any bill concerning coal slurry pipelines, which by their nature require the diversion of water, should expressly preserve and protect existing federal law governing the use of waters stored in federal reservoirs.

Section 5 of the Flood Control Act of 1944, now 33 U.S.C. § 708, authorizes the Secretary of the Army to market surplus water for domestic and industrial uses but specifically provides that such marketing contracts shall not adversely affect then existing uses. This proviso was added on recommendation of the Senate Committee on Commerce, which stated[3]:

> In connection with the sale for domestic and industrial use of surplus water available at any reservoir under the control of the War

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[3] Senate Report 1030 (78th Cong., 2nd Sess.), p. 4.

> Department, the committee believes that existing lawful uses of water should be protected.

The Missouri River reservoirs are under the control of the U.S. Army Corps of Engineers. The Corps of Engineers defines "surplus water" for purposes of this section as follows[4]:

> The term surplus water means water trapped or stored in a reservoir project which is not utilized to fulfill an authorized project purpose. If surplus water is available in Corps projects, then by definition, there will be no benefits or revenues foregone nor will there be any value assigned to replacement storage.

The Department of Interior is proposing a program for industrial water marketing from Missouri River reservoirs without any consideration of the limitations of section 6. As part of this program, the Secretary is proposing to execute a contract with E.T.S.I. Pipeline Project to divert 20,000 acre-feet annually from Oahe Reservoir for transportation use in a coal slurry pipeline and contemplates other such contracts from Missouri River reservoirs.[5] The proposed contract, as revised to November 16, 1981, subordinates water use to claims of Indian tribes if found to have priority by a court, but not to any other existing uses.

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[4] Department of the Army, U.S. Corps of Engineers, Project Purpose Planning Guidance, ER 1105-2-20, ¶7-3(c) (29 Jan. 1982).

[5] E.T.S.I. plans to request an additional 30,000 acre-feet per year and its proposed intake structure would accomodate this amount of water.

The Department of Interior's water marketing program adversely affects hydropower generation and navigation, specific purposes for which the project was authorized. The E.T.S.I. project would itself preclude the generation of over 7 million kilowatt hours per year.[6] The "interim" water marketing program of one million acre-feet per year would reduce hydropower generation from the entire Missouri River main-stem system by over five percent.[7] Contracts for firm commitments of power will be revised to reflect the reduced generation so customers in the Missouri River region will be required to pay for replacement energy at a much higher cost.[8] Under the Department of Interior's own calculations, over 200,000 tons of coal must be burned annually to make up for the loss of clean hydropower.[9] Coal slurry pipelines will result in a significant proportion of this lost energy. Yet pipelines do not offset the lost energy generation since the coal could be moved by other means.[10]

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[6] Letter from Joseph B. Marcotte, Acting Regional Director, Bureau of Reclamation, to Robert L. McPhail, Administrator, Western Area Power Administration, Nov. 9, 1981 (copy attached as Exhibit A).

[7] Department of the Interior, Bureau of Reclamation, Environmental Impact Statement, Waters for Energy, Missouri River Reservoirs (1977), p. 3-122.

[8] See letter from G. G. Stamm, Commissioner, Bureau of Reclamation, to Loren A. Zingmark, Feb. 27, 1976 (copy attached as Exhibit B).

[9] E.I.S., Waters for Energy, supra, n. 7, p. 3-122.

[10] Exhibit A, letter from Joseph B. Marcotte to Robert L. McPhail, supra, n. 6.

The State of Iowa is concerned that future diversions of Missouri River water for coal slurry pipelines cumulatively with industrial marketing contracts could eliminate navigation on the river by the year 2000. The reduction in flows resulting from these diversions would reduce the navigation season and directly impact the economics of navigation and river related industries. The Corps of Engineers has estimated the yearly navigation benefits along the Missouri River at $20.7 million, of which Iowa's benefits are calculated at about $5.1 million per year. These benefits are based on the difference between barge transport and rail transport, the next cheapest alternative. If the major diversions presently under study for the Missouri River occur together with new diversions for coal pipelines, barge transportation could be eliminated along Iowa's western border by at least the year 2000.

Iowa is the largest exporting state of agricultural products and relies heavily on its transportation industry. The adverse impacts on barge navigation and the railroad industry from coal slurry pipelines could well cause an increase in the delivery costs of agricultural products at the expense of America's consumers.

Similarly navigation on the Mississippi River may also be affected by diversions of water from the Missouri. At times, the Missouri River provides over half of the flow in the lower Mississippi. Reductions in flow of the Missouri when water is needed for navigation purposes in the lower Mississippi could seriously affect the economy of the Midwest and South.

Congress carefully protected the interests of the States in sections 1 and 6 of the Flood Control Act of 1944. A primary purpose of that law was to protect and preserve the States' interests in the development and use of watersheds within their borders. Section 1. The O'Mahoney amendment, section 1(b), was adopted to ensure that the authorization of reservoirs for navigation use would not be construed as granting the federal government priority to claim waters arising west of the 98th meridian over beneficial consumptive uses.[11] (The amendment was not intended to allocate waters among the States.)[12] Section 6 limited the sale of stored waters for municipal or industrial use to those which were surplus to project functions and which would not adversely affect existing uses. (The Secretary of Army, and not Interior, was authorized to enter into such contracts.) Congress did not take any water rights for industrial use by virtue of the authorization of the Missouri River reservoirs.

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[11] See statements of Senator Robertson, supporter of the O'Mahoney Amendment, contained in Minority Views and Supplemental Exposition on Need for and Operation of O'Mahoney Amendment, Senate Report 903, Part 2 (78th Cong., 2d Sess.), p. 12.

[12] Id., p. 6-7.

In 1975 the Secretaries of the Army and Interior entered into a two-year memorandum of understanding to expedite the use of Missouri River waters for energy development. That memorandum of understanding was adopted without the concurrence of the States. Although later extended, it has now expired. The Corps of Engineers has advised the State of Iowa that it does not intend to renew that agreement.[13]

The Secretary of Interior has authority only over reclamation and irrigation works on the Missouri River. Sections 8 and 9(c), Flood Control Act of 1944. The Secretary is however asserting authority to market stored waters from reservoirs under the control of the Corps of Engineers without the limitations contained in section 6 and despite adverse effect on specifically authorized reservoir functions.

The Department of Interior has proceeded without consideration of the interests of downstream States. A 1977 environmental impact statement entitled Waters for Energy, Missouri River Reservoirs, devoted one chapter to water availability. This was based solely on prior studies and relied on average annual flow rather than anticipated low flow to determine availability.[14] That E.I.S. considered impacts only in the region of development.[15] Impacts in downstream States were ignored. The study specifically stated that it did not consider allocations of water among the States or to Indian tribes.[16] The study was circulated only to upstream States.

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[13] Letter from Gen. E. R. Heiberg III, Director of Civil Works, U.S. Army Corps of Engineers, to Thomas J. Miller, Attorney General of Iowa, April 1, 1982 (copy attached as Exhibit C).

[14] E.I.S., Water for Energy, supra, n. 7, p. 1-3.

Although the 1977 study specifically disclaimed its use as a planning document or as an environmental impact statement for a specific project,[17] the project E.I.S. for the E.T.S.I. Pipeline Project made no independent analysis of the impacts of water withdrawal from the Oahe Reservoir.[18] Furthermore, the Bureau of Reclamation agreed to delay publication of E.T.S.I.'s desire to negotiate for a marketing contract from the Oahe Reservoir of which it was advised on June 22, 1981, until after expiration of the comment period on the final E.I.S. which listed the Oahe as merely an alternate water source. The study of the Oahe source was minimal, consisting of only 16 pages throughout the entire E.I.S. Not only did the Bureau conceal from downstream States that the E.T.S.I. project would implement Interior's program to market water from Missouri River reservoirs but the E.I.S. was not even circulated for the comments of the State of Iowa.

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[15] Id., p. 1-5.

[16] Id., p. 1-15; 9-1.

[17] Id., p. 1-4; F-35.

[18] E.I.S., E.T.S.I. Pipeline Project, supra, n. 1, p. 1-63.

The State of Iowa is concerned that the Department of Interior will continue to engage in water marketing contracts for uses inconsistent with the Flood Control Act of 1944 and without consideration of the interest of other users of the Missouri River. The legal and factual questions concerning water allocation are complex. We would ask that Congress not take any action which could potentially affect the use of Missouri River waters in any manner other than that provided by existing state and federal law.

This Office on behalf of the State of Iowa therefore requests that this bill not be adopted. If the Congress determines that eminent domain powers should nonetheless be granted to coal slurry pipelines, the bill should expressly affirm that it is not intended to in any way alter or affect any existing state or federal law concerning the use, diversion, marketing, or allocation of waters. Any such enactment should also provide that nothing in the bill shall in any manner affect any necessary determinations required by existing State or federal water law. Since the purpose of the bill is to authorize eminent domain and not to change water laws, section 6 should be carefully re-drafted to expressly ensure that this bill makes no determinations affecting water allocation.

Thank you for the opportunity to present these views concerning these perceived deficiencies in the bill.

EXHIBIT A

UM-440 NOV 9 1981

Robert L. McPhail, Administrator
Western Area Power Administration
P. O. Box 3402
Golden, CO 80401

Dear Mr. McPhail:

The Bureau of Reclamation, on behalf of the United States, has initiated negotiations with Energy Transportation Systems, Inc. (ETSI) for industrial water service from Lake Oahe in the amount of 20,000 acre-feet annually. A copy of the draft contract is enclosed for your information and review.

In water year 1980, the cumulative generation per acre-foot of water released through Oahe powerplant and the other three powerplants downstream was 354.62 Kw.-hrs. The theoretical annual loss by diverting 20,000 acre-feet of water annually above Oahe powerplant would be 7,092,400 Kw.-hrs. This would be about 0.7 of one percent of the total 1980 generation at the six main stem Missouri River powerplants.

The proposed ETSI plan would deliver 37.4 million tons of coal annually to the middle southern states using 20,000 acre-feet of water annually by 1988. The transportation energy efficiency as estimated in the final environmental statement (EIS) prepared by the Bureau of Land Management is 95.7 percent for the Oahe Reservoir alternative.

The EIS does not specifically mention the powerplant capacities that would utilize the coal transported. We have therefore assumed that the equivalent of seven 1,000 megawatt powerplants would be the total capacity. This would be about 5 million tons of coal annually per 1,000 megawatt plant. We have also assumed a net plant factor of 55 percent in the following computations.

Plant Capacity	Hours Per Year		Total Annual Generation KWH
1,000 MW	8,760		8,760 X 10^6
Assumed plant factor 55%		=	4,818 X 10^6
Total for seven 1,000 plants		=	33,726 X 10^6

A direct comparison between the net generation of seven 1,000 megawatt plants and the loss of hydrogeneration by removing 20,000 acre-feet of water annually above Oahe powerplant would not in this case be meaningful since the water is a transportation medium. The coal could be transported by alternative methods and result in essentially the same net generation. From data presented in the EIS, the transportation energy efficiency would be fairly comparable for alternative transportation methods.

Although the Memorandum of Understanding (MOU), concerning industrial water marketing among the Secretaries of Army, Energy, and Interior expired on December 31, 1978, the coordination procedures established under the MOU will continue. We conclude that the use of 20,000 acre-feet of water annually for ETSI's coal slurry project is a beneficial use that should take precedence over its use for hydropower generation. This conclusion is not based on energy production comparisons, but more because we believe that coal slurry transportation technology should be tested. We hope you will concur.

We have scheduled a meeting to obtain public input on the proposed contract at the Kings Inn in Pierre, South Dakota, on November 24, 1981. Please provide any comments you may have on the draft contract by November 16, iff possible.

Sincerely yours,

Joseph B. Marcotte, Jr.

ACTING Regional Director

Enclosure

bc: Commissioner, Attention: 440
UM-440

EXHIBIT B

United States Department of the Interior

BUREAU OF RECLAMATI
WASHINGTON, D.C. 202

OFFICIAL FILE COPY
MAR 3 1975
1010

IN REPLY REFER TO: 631
630.

FEB 27 1976

Mr. Loren A. Zingmark
General Manager
East River Electric Cooperative, Inc.
Madison, South Dakota 57042

Dear Mr. Zingmark:

This is in reply to your letter of December 16, 1975, requesting our response to the questions raised by Mr. Jeff Nelson at the August 28, 1975, hearings of the Senate Interior Subcommittee on Energy Research and Water Resources. The questions and our response to each are as follows:

1. How much energy will be sacrificed to industrial diversions?

Each acre-foot of water diversion would reduce generation by an average of 400 kWh. Although requests have been received from a number of States for an annual diversion of 1,200,000 acre-feet, recent studies for the Northern Great Plains Resource Program have indicated that the most likely depletion level by the year 2000 would be less than half of that amount, or from 450,000 to 500,000 acre-feet per year.

2. Has an analysis been made of the effect that energy prematurely sacrificed for industrial diversions will have on existing Bureau of Reclamation power and energy projections?

Yes, a number of different industrial depletion levels were investigated in 1974 by the Federal-State Ad Hoc Committee on Industrial Water Marketing. The studies indicated that the power (capacity) of the system would remain the same, but that the average annual energy production would be reduced as indicated in the answer to question 1 above.

3. What effect will the reduced generation capability have on the financial integrity of the Pick-Sloan Missouri Basin Program (PSMBP) account?

The reduction in energy generation and sales due to industrial water depletions will not adversely affect the financial integrity of PSMBP.

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The revenues anticipated from the sale of municipal and industrial water will more than offset any reduction in revenue from the sale of electricity. The projected depletions due to the development of irrigation, municipal, and industrial water uses have always been recognized in the Power Repayment Studies of PSMBP.

4. Will the Bureau of Reclamation incrementally reduce some or all of its firm contract commitments for capacity and/or energy obligations to preference customers as a result of industrial diversions?

The Bureau of Reclamation intends to meet its present contractual obligations of its present long-term commitments which terminate in 1985. In 1985 the effect of new irrigation projects and other water uses must be reflected under new contracts. The total reduction in hydroelectric power and energy is expected to approach 25 to 30 percent by the year 2040, and our future marketing arrangements must be adjusted to reflect this.

5. In order to meet capacity and energy contract commitments, both now and in the future, maintained at no less than the present level, will the Bureau of Reclamation be forced to procure capacity and energy from other more expensive sources? If so, will or can the Bureau of Reclamation be the "broker" for such transactions?

The Bureau has statutory authority to purchase energy to meet firm power commitments. It will meet those firm commitments by procuring energy as necessary only to make up for reductions due to industrial water diversions below average water and not those associated with other causes, such as Federal irrigation projects. The present level of capacity and energy commitments will be maintained through the term of existing contracts, which expire in 1985. After that time the long-term commitments will be adjusted accordingly, but the new level will be maintained for the term of the new contracts.

6. Can reduced energy generation due to industrial diversions be accounted for by reducing present and projected nonfirm energy sales?

No, since only a small amount of nonfirm energy sales were projected in the "Information Report on Tentative Power Rate Adjustment, Eastern and Western Divisions" dated September 1975.

7. Will or can the Bureau of Reclamation maintain Pick-Sloan Missouri Basin Program fiscal integrity through "block" payments to compensate for reduced energy generation?

Yes, since the industrial water rate being proposed is adequate to maintain the PSMBP financial integrity.

8. Will the Bureau of Reclamation modify their electric rate structure to compensate for lost revenue from industrial water diversions?

Unless and until project costs are allocated to the municipal and industrial water purpose, revenues from the sale of industrial water will be credited to project costs in such a manner that power customers will not have to increase their payments to make up revenues lost by virtue of the diversion of water for industrial sales or to make up the added costs of purchasing replacement energy to fulfill existing contract commitments. To this extent, then, reduction in hydroelectric generation caused by the PSMBP main-stem depletions for other users will not affect power rates.

9. Will the cost of replacement energy be considered in evaluation of reduced energy generation impacts? If so, what index or method is going to be used to fix the cost of replacement energy lost to reduced generation?

Yes, the contracts for industrial water will have provisions to review the adequacy of the water rate periodically (each 5 years). If the cost of replacement energy necessitates an increase, the water rate will be adjusted accordingly.

Sincerely yours,

[Sgd] G. G. Stamm

Commissioner

bcc:
Regional Director, Billings, Montana (w/c of incoming)

EXHIBIT C

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314

RECEIVED
1982 APR -8 AM 8 43
ATTORNEY GENERAL

REPLY TO
ATTENTION OF:

DAEN-CWR-L

1 APR 1982

Honorable Thomas J. Miller
Attorney General
State of Iowa
Des Moines, Iowa 50319

Dear Mr. Attorney General:

This is in response to your letter of March 4, 1982, concerning the renewal or revision of the February 24, 1975, Memorandum of Understanding on Marketing of Missouri River Water.

The U.S. Army Corps of Engineers has no studies underway concerning the marketing of Missouri River water nor is consideration being given to renewal or revision of the February 24, 1975, Memorandum of Understanding. The current federal action pertaining to the request from Energy Transportation Systems, Incorporated, is being taken by the U.S. Department of the Interior.

I have taken the liberty of forwarding your letter to the Department of the Interior so that your concerns may be properly addressed. A copy of my referral is inclosed.

Sincerely,

E. R. HEIBERG III
Major General, USA
Director of Civil Works

1 Incl
As stated

The **Chairman**. Mr. Sarcone, you indicate on page 6 of your statement that the State of Iowa is concerned that future diversions of Missouri River water for coal slurry pipelines cumulatively with industrial marketing contracts could eliminate navigation on the river by the year 2000. Could you detail the basis for that statement?

Mr. **Sarcone**. As we understand now, there are plans for possibly diversions of 8 to 10 million acre-feet from the Missouri River reservoirs at this particular time. These plans are in the works. One, is the high plains diversion system, and at this particular time there has only been one, the ETSI pipeline system which has come into existence, but there are others waiting in the wings. The one that comes to mind is the high plains diversion. There are others and I could provide you with more information on that.

The **Chairman**. If you would do that it would be made part of the record when received. And I appreciate, again, the detail with which you have supported your statement in other respects.

[The requested information follows:]

MAY 1 4 1982

Department of Justice

THOMAS J. MILLER
ATTORNEY GENERAL

ADDRESS REPLY TO:
HOOVER BUILDING
DES MOINES, IOWA 50319

May 13, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
MAY 14 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
United States Senator
Chairman, Committee on Energy and
Natural Resources
Dirksen Senate Office Building
Washington, D.C. 20000

Dear Senator McClure:

Enclosed you will find additional information regarding plans for future diversions of water from the Missouri River and its tributaries which you requested from me at the time I testified before your committee on May 10, 1982. I would call your attention to tables 2 and 3 of the enclosed pamphlet from the Missouri Basin States Association which lists the proposed water withdrawals for both in-basin uses and out-of-basin transfers. For proposed projects within the basin which have a listed number of acre-feet to be withdrawn per year, the total amount would be approximately 3.6 million acre-feet. For out-of-basin transfers, depending on the amount used for the Ogallala diversion, the amount varies from 7.8 million acrefeet a year to 10.5 million acre-feet per year. Combining these figures, which are by no means exact because the amount of water needed has not been determined for each project, the amount would vary from 11.4 million acre-feet per year to 14.1 million acre-feet per year. Those tables also list a number of proposals for which no set figures have been delineated. Additionally, Indian tribes within the basin claim substantial reserved water rights.

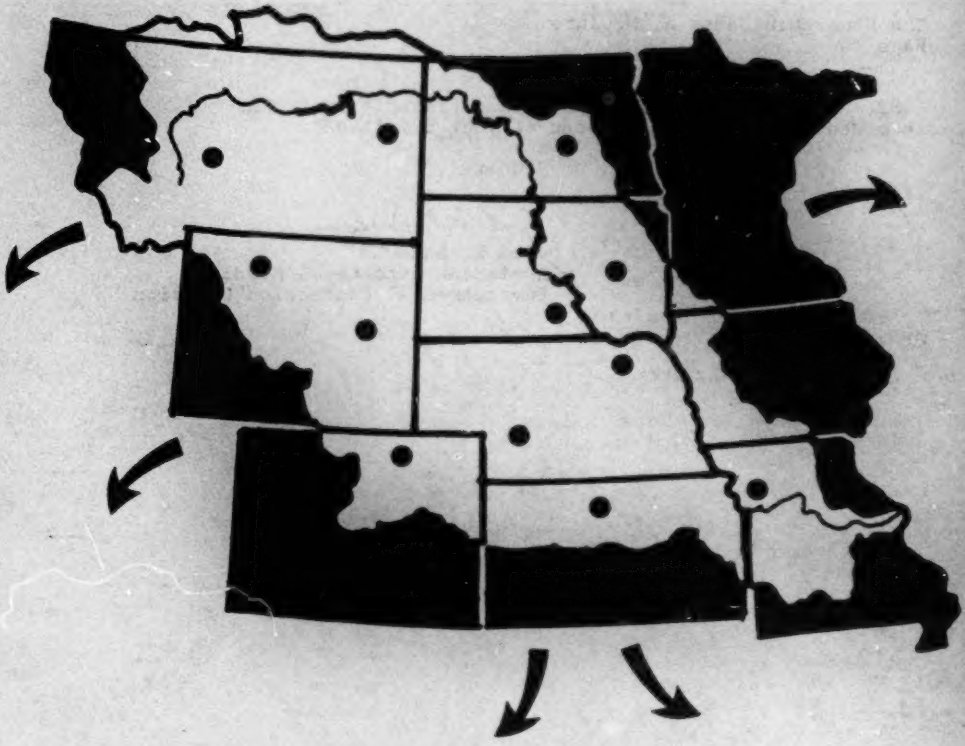
I hope this information will assist you and if there is any further information needed by your committee from this office, please contact me.

I also would like to thank you for the opportunity to testify before the committee at the hearing held on May 10, 1982, and appreciate the respect and friendly treatment accorded me by you and members of your committee.

Sincerely,

John P. Sarcone
JOHN P. SARCONE
Assistant Attorney General
Environmental Protection Division

JPS:rcp



SELECTED MISSOURI RIVER BASIN WATER USE AND TRANSFER PROPOSALS

MISSOURI BASIN STATES ASSOCIATION

February 1982

PREFACE

Much has been written about the Missouri River and its 523,000 square mile drainage basin. The river was called "The Big Muddy" and was well known for frequent spring floods and low summer flows. In the spring and fall millions of migrating waterfowl use the "Missouri Flyway", and in winter ice often chokes its channel.

Many of the vagaries of the Missouri River, and to a large degree its major tributaries, have been solved. The Missouri River itself has been largely harnessed by six dams constructed since the 1930's. These structures store water to prevent floods and make it available on a regulated basis for irrigation, hydroelectric power generation, municipal and industrial supplies, navigation, and for fish, wildlife and recreation activities. Through this development, the character of the river and the entire basin has changed. Some say for the better and point to economic and social gains. Others recall that the rivers were "born free" and lament the wild and free values that were lost in the "taming of the Big Muddy."

Much of the basin development originally planned in the 1930's and 1940's has not yet been accomplished. Some urge continuation of this development to further economic well-being within the basin. Others caution restraint or even seek to block further large-scale development.

Beyond additional in-basin development, a new dimension has been added to proposed Missouri River development in the 1980's -- proposals for diverting water from the Missouri River to areas outside the Missouri River drainage. Some of these proposals are so large it is difficult to comprehend their impacts on the basin's hydrology and economy. Others are relatively insignificant in terms of water volume, but raise the specter of setting precedent.

SELECTED MISSOURI RIVER BASIN WATER USE AND TRANSFERS PROPOSALS

Introduction

The major purposes for which the Missouri Basin States Association was created are to provide a forum for discussion of interstate water issues, to aid coordination of water resources management in the Missouri River Basin and to provide information for making knowledgeable water resources decisions. The information in this brochure has been assembled and is being made available to residents of the basin in furtherance of those purposes.

Proposals for in-basin development and for out-of-basin diversion of Missouri River water are presented separately in this paper. Only in-basin development proposals expected to withdraw more than 5,000 acre-feet annually from the stream system are included. It should be recognized that many smaller projects have been proposed. Some will come to fruition and others will not. If all were built, the cumulative water withdrawals would have significant effects on the flow of major tributaries and in the lower reaches of the Missouri River itself. So, although this report is limited to the larger proposals, smaller ones must not be discounted.

The information presented about each proposed project is the latest available at the time this paper was being assembled. Information on project status was verified with the sponsoring agency or organization.

Please heed the following warning -- in-basin water withdrawal volumes cannot simply be added to determine the reduction in flow at a downstream point. Most purposes for which water is used do not consume all of the water withdrawn. In some cases, most of the water is returned to the system, sometimes at another location. On the other hand, diversion of water out of the Missouri Basin itself is a total loss to the system below the point of diversion.

Information on projects being proposed for out-of-basin diversion was accumulated from various sources. Contacts were made with project sponsors or knowledgeable sources to verify the information presented. It is believed to be the most factual information available at this time, but it must be recognized that such preliminary project proposals frequently change.

Historic Use and Availability

Any discussion of water use and transfer proposals should begin with a recognition of the current water use in the Missouri River Basin and an understanding of several terms. In this paper, "water withdrawal" is water taken from the stream system for some beneficial use. "Consumptive use" is that portion of the water withdrawn which is consumed and not returned to the stream system at the point of diversion or further downstream.

During an assessment of the nation's water in 1975, it was estimated that water withdrawals in the Missouri River Basin totaled 39.9 million acre-feet and that consumptive use totaled 17.5 million acre-feet as shown in Table 1.

TABLE 1
MISSOURI RIVER BASIN WATER WITHDRAWAL AND CONSUMPTIVE USE
1975

Functional Use	Water Withdrawal (1000 acre-feet)	Consumptive Use (1000 acre-feet)
Municipal & Industrial (central system)	1,222.6	479.1
Rural Domestic	188.4	122.3
Manufacturing (self-supplied)	727.4	217.3
Mining	350.9	126.7
Irrigation	31,389.3	16,053.0
Livestock	488.3	480.3
Steam Electric	5,560.4	74.6
TOTAL	39,927.3	17,553.2

Source: Missouri River Basin Commission, 1975 National Water Assessment, Technical Memorandum No. 2 (Table SRF-2, page II-52 and Table SRF-3, page II-88).

The largest water withdrawal in the basin is for irrigated agriculture which accounts for nearly 80 percent of the total water withdrawn. Other large withdrawals are for steam electric power generation and municipal and industrial uses. Irrigated agriculture is responsible for 90 percent of the water consumed. Livestock and municipal and industrial uses follow in amounts of consumptive use.

To put water use into perspective, water availability must be examined. Many tributary areas of the Missouri Basin are water short, but under normal conditions the Missouri River itself has sufficient water for current uses. The average annual flow of the Missouri River at Bismarck, North Dakota, Sioux City, Iowa and the mouth is 15, 23 and 57 million acre-feet, respectively. Record low flows for the same locations are 9, 11 and 22 million acre-feet, respectively. The record and recent history show that water supply does not always meet demand and some uses are curtailed or limited at times.

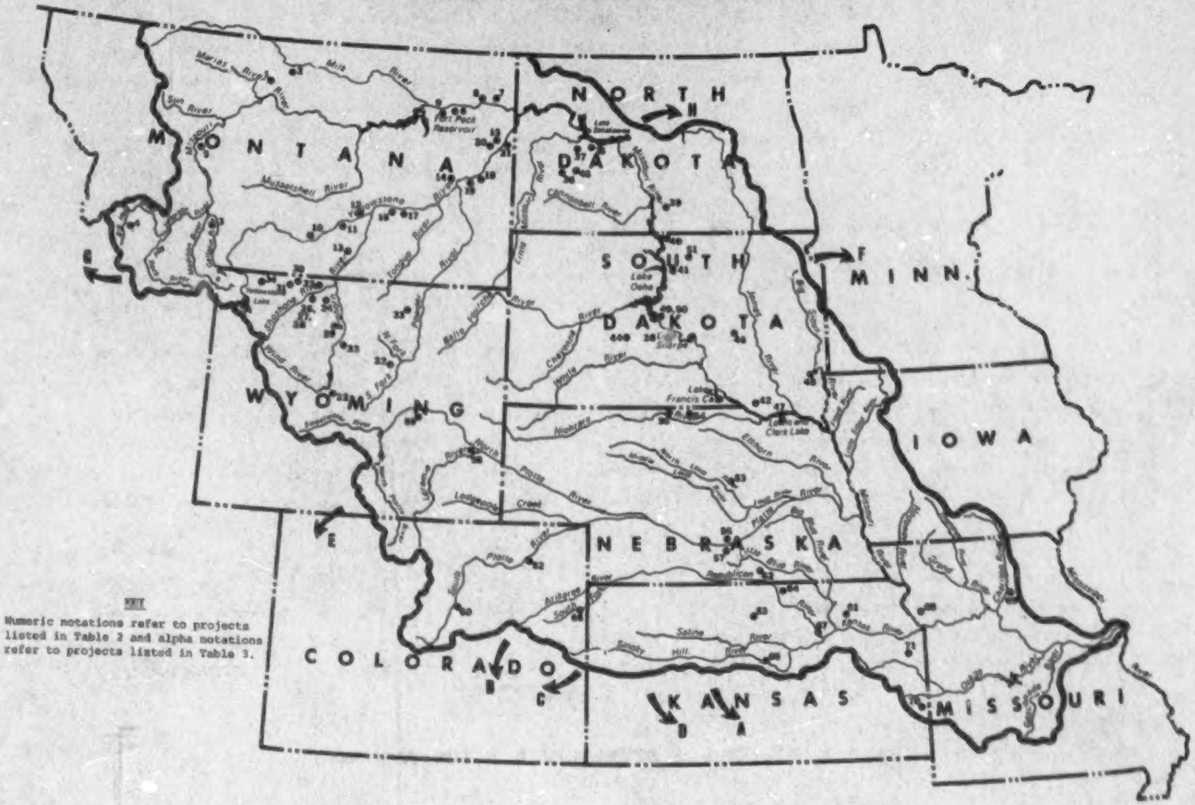
Future Water Uses

In-Basin Use. Table 2 and the center illustration identify those projects which would use water for purposes within the basin. By far the single greatest use of water for the described projects is irrigated agriculture. Also important are those projects which would provide water for municipal and industrial needs, including rural domestic water supply. Other uses include energy production and protection of fish and wildlife. It must be noted that some of these projects may never be built. On the other hand, there are many smaller projects being considered for construction which are not listed here. Also, while withdrawal for these proposed projects might be significant, some of the water will be returned to the stream system and thus be available for additional downstream use.

In addition to these proposed water withdrawals, states are also using their appropriation systems to reserve water for certain uses. One such case is in Montana, where the state has reserved 5.5 million acre-feet/year of flow in the Yellowstone River to protect fisheries. This type of reservation is being increasingly considered by states, especially in the protection of instream flows. While there might be certain limitations to these reservations, including that they are subordinate to prior appropriations, subsequent water appropriations or uses might be limited in amount and time because of these reservations. However, the water would be available for use downstream.

Out-of-Basin Use. The other category of water use in this paper are those proposed projects which would withdraw water from the Missouri River Basin for use outside the basin. Each of these projects is briefly described in Table 3 and its location shown in the center illustration. Most of these projects are proposed to use Missouri Basin water for energy production -- either for moving coal by slurry pipeline or for oil shale development. However, the non-energy uses are the largest proposed uses. Up to 4.3 million acre-feet annually could be used for agricultural and industrial purposes by the High Plains Diversion proposal and 871,000 acre-feet annually could be used for agricultural needs in North Dakota within the Garrison Diversion Unit. Except for the several thousand acre-feet of water which might be available for South Dakota communities along the ETSI pipeline and some water from the Garrison Diversion Unit, all of the water withdrawn for these projects is consumed.

Proposed Water Withdrawals
Missouri River Basin


MONTANA
NORTH DAKOTA
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WYOMING
NEBRASKA
COLORADO
KANSAS
MISSOURI
Marias River
Milk River
Sun River
Missouri
Musselshell River
Yellowstone
Fort Peck Reservoir
Lake Sakakawea
Cannonball River
Lake Oahe
Cheyenne River
White River
Belle Fourche
Lake Francis Case
Lewis and Clark Lake
James River
Big Sioux
Niobrara
Elkhorn River
Loup River
Platte River
North Platte River
South Platte
Laramie River
Lodgepole Creek
Wind River
Shoshone River
Sweetwater River
Republican
Little Blue River
Big Blue River
Smoky Hill River
Saline River
Kansas River
Arikaree
Grand River
Osage River
A
B
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Numeric notations refer to projects listed in Table 2 and alpha notations refer to projects listed in Table 3.

TABLE 2
PROPOSED WATER WITHDRAWALS FOR IN-BASIN USES

	Project/Location	Water Source	Withdrawal (AF/Year)	Primary Use(s)	Sponsor*	Status	Remarks
1.	Lower Marias Unit/MT	Marias River	250,000	Agriculture	USBR	Study	
2.	Milk River Supplemental/MT	Milk River	Unknown	Agriculture	USBR	Study Complete	Existing study needs update
3.	Gallatin Unit/MT	Gallatin River	93,000	Agriculture	USBR	Study	193 wells
4.	Big Hole/MT	Big Hole River	Unknown	Agriculture and instream	MT DNRC	Proposal	
5.	Chestnut Valley Unit/MT	Missouri River	Unknown	Agriculture	USBR	Proposal	Would irrigate 6,350 acres
6.	Fort Charles Unit/MT	Missouri River	Unknown	Agriculture	USBR	Proposal	Would irrigate 3,187 acres
7.	Calais Unit/MT	Missouri River	Unknown	Agriculture	USBR	Proposal	Would irrigate 6,410 acres
8.	Poplar Unit/MT	Missouri River	Unknown	Agriculture	USBR	Proposal	Would irrigate 4,440 acres
9.	Wapiti Unit/MT	Missouri River	Unknown	Agriculture	USBR	Proposal	Would irrigate 3,739 acres
10.	White Horse Bench Unit/MT	Clarks Fork of Yellowstone River	Unknown	Agriculture	USBR	Proposal	
11.	Huntley South Unit/MT	Yellowstone River	Unknown	Agriculture	USBR	Proposal	
12.	Seven Mile-Sitting Bull Unit/MT	Yellowstone River	26,000	Agriculture	USBR	Study complete	Existing study needs update
13.	Hardin Unit/MT	Bighorn River	70,000	Agriculture	USBR	Study complete	Existing study needs update
14.	Conna Coulee Unit/MT	Yellowstone River	Unknown	Agriculture	USBR	Proposal	
15.	Fox Creek South Unit/MT	Yellowstone River	Unknown	Agriculture	USBR	Proposal	
16.	Hay Creek Unit/MT	Yellowstone River	Unknown	Agriculture	MT DNRC	Proposal	
17.	Forsyth Unit/MT	Yellowstone River	Unknown	Agriculture	MT DNRC	Proposal	
18.	Fallon Bench Unit/MT	Yellowstone River	Unknown	Agriculture	MT DNRC	Proposal	
19.	Broadview Bench Unit/MT	Yellowstone River	Unknown	Agriculture	MT DNRC	Proposal	
20.	War Dance Unit/MT	Yellowstone River	Unknown	Agriculture	MT DNRC	Proposal	
21.	Seven Sisters Unit/MT	Yellowstone River	Unknown	Agriculture	USBR	Study complete	Existing study needs update
22.	Kirby Draw Project/WY	Bighorn River	Unknown	Agriculture	WY WDC	Proposal	

23. Banjo Flats Project/WY	Bighorn River	Unknown	Agriculture	WY WDC	Proposal	
24. Greybull Flats Unit/WY	Bighorn River	Unknown	Agriculture	USBR	Study complete	Existing study needs update
25. Polecat Bench/WY	Shoshone River	42,800	Agriculture	USBR	Proposal	
26. Shoshone Extension Unit South/WY	Shoshone River	Unknown	Agriculture	WY WDC	Proposal	
27. McCullough Section/WY	Shoshone River	Unknown	Agriculture	WY WDC	Proposal	
28. Sage Section/WY	Shoshone River	Unknown	Agriculture	WY WDC	Proposal	
29. Westside Irrigation Project/WY	Bighorn River OR Boysen Reservoir	Not Determined	Agriculture	WY WDC	Study	
30. Badger Basin Unit/WY	Clarks Fork of Yellowstone River	Unknown	Agriculture	USBR	Proposal	
31. Clarks Fork Offstream Storage/WY	Clarks Fork of Yellowstone River	Unknown	Agriculture	USBR	Proposal	
32. Kaycee Project/WY	Powder River	Unknown	Agriculture and municipal and industrial	WY WDC	Proposal	
33. Buffalo Project/WY	Clear Creek on Powder River	Unknown	Municipal	City of Buffalo	Proposal	
34. Cadiz Project/WY	Clarks Fork River	Not Determined	Energy	Cadiz Corporation	Study	Would transfer water to Powder River Basin
35. Great Plains Gasification Project/ND	Lake Sakakawea	12,800	Energy	GPGA	Construction	Would withdraw an additional 3,000 AF/year from surface and ground water sources for support facilities
36. Southwest Area Water Supply/ND	Lake Sakakawea	10,000	Municipal and industrial	ND	Study	
37. Nokota Methanol Plant/ND	Lake Sakakawea	18,600	Energy	ND	Study	Being considered with Southwest Area Water Supply proposal
38. Grass Rope Unit/SD	Missouri River	7,000	Agriculture	USBR	Proposal	
39. Apple Creek Unit/ND	Apple creek	32,400	Agriculture and municipal and industrial	USBR	Study complete	No further federal consideration
40. Pollock-Herreid Unit/SD	Missouri River and Spring Creek	28,000	Agriculture and municipal and industrial	USBR	Study complete	No further federal consideration

TABLE 2 (CONTINUED)

	Project/Location	Water Source	Withdrawal (AF/Year)	Primary Use(s)	Sponsor*	Status	Remarks
41.	Oahe Riverside Irrigation/SD	Oahe Reservoir	Unknown	Agriculture	USBR	Study complete	Existing study needs update
42.	Lower James-Ft. Randall Water Diversion/SD	Missouri River and James River	Not Determined	Agriculture	USBR	Study	
43.	Gregory County Water Supply SD	Lake Francis Case	19,100	Agriculture and municipal and industrial	FmHA	Study complete	1,700 AF/year of withdrawal for municipal use
44.	Western Dakota's Water Resources Management Plan/SD	Missouri River	Not Determined	Municipal and industrial	COE	Study	
45.	Versippi Unit/ND	Green River	Unknown	Municipal and industrial	USBR	Proposal	
46.	Eastern SD and Upper Big Sioux River/SD	Missouri River	Not Determined	Municipal and industrial	COE	Study	
47.	Crofton Unit/NE	Missouri River	86,900 to 210,500	Agriculture and municipal and industrial	USBR	Study complete	No further federal consideration
48.	Sioux Falls Unit/SD	Big Sioux River and Slipup Creek	Unknown	Municipal and industrial	USBR	Proposal	
49.	Oahe Unit/SD	Missouri River	444,400	Agriculture and municipal and industrial	USBR	Construction halted	Initial stage would have irrigated 190,000 acres; deauthorization is being considered
50.	CENDAK/SD	Oahe Reservoir	1.5 million	Agriculture and municipal and industrial	CI	Study	Would use existing features of Oahe Unit and irrigate up to 400,000 acres
51.	WEB Pipeline/SD	Oahe Reservoir	6,000	Municipal and industrial	WEB	Study	Would meet some needs of Oahe Unit
52.	Narrows Unit/CO	South Platte River	133,000	Agriculture	USBR	See Remarks	Construction deferred until completion of alternative analysis; would irrigate 287,000 acres; return flows estimated at 24,500 AF/year; USBR initiated preconstruction activities in February 1982
53.	North Loup Division/NE	Calamus River and North Loup River	137,000	Agriculture	USBR	Construction	Would irrigate 53,000 acres
54.	O'Neill Unit/NE	Niobrara River	225,000	Agriculture	USBR	See Remarks	Construction enjoined until completion of supplemental EIS; would irrigate 77,000 acres

55. Prairie Bend Unit/NE	Platte River	Not Determined	Agriculture	USBR	Study	Would irrigate 70,000 acres
56. Sparks Unit/NE	Niobrara River	71,200	Agriculture	USBR	Study complete	No further federal consideration; would irrigate 35,000 acres
57. Little Blue Water Resources Project/NE	Platte River	115,000	Agriculture	LB NRD	Study	Would irrigate 40,000-60,000 acres
58. Corn Creek Irrigation Project/WY	Grayrocks Reservoir and Glendo Reservoir	22,500 10,000	Agriculture	WY	Study	Would irrigate 15,000 acres
59. Glenrock/Deer Creek Project/WY	Deer Creek (North Platte River)	Not Determined	Municipal	City of Glenrock	Study	
60. Foothills Municipal Water Treatment Project/CO	South Platte River	Unknown	Municipal and industrial	DWB	Construction	Features include Strontia Springs Dam
61. Osage Lake/KS	Vermillion Creek	See Remarks	Municipal and industrial	COE	See Remarks	Construction authorized; 20,000 AF/year available for use
62. Little Blue Unit/NE	Little Blue River	43,180	Agriculture	USBR	Study complete	No further federal consideration; would irrigate 20,000 acres
63. Glen Elder Unit/KS	Solomon River	50,400	Agriculture and municipal and industrial	USBR	Study	
64. Scandia Unit/KS	Republican River	28,082 to 28,465	Agriculture and municipal and industrial	USBR	Study	28,000 AF/year of withdrawal for irrigation
65. Kanopolis Unit/KS	Smoky Hill River	54,500	Municipal and industrial	USBR and COE	Study complete	Authorized for construction; 29,500 AF for irrigation
66. Bonny Reservoir/CO	South Fork Republican River	See Remarks	Fish and wildlife, and recreation	CO DNR	See Remarks	State is negotiating purchase of 35,000 AF conservation pool; 5,000 to 6,000 AF might be provided for irrigation at Almel Unit
67. Milford Lake/KS	Republican River	See Remarks	Municipal and industrial	KS WA	Study	State has purchased all of storage; 144,000 AF/year available for use; state is considering various applications including one by City of Wichita which is in the Arkansas River Basin.
68. Smithville Lake/MO	Little Platte River	See Remarks	Municipal and industrial	WY	Study	33,000 AF/year available for use

TABLE 2 (CONTINUED)

	Project/Location	Water Source	Withdrawal (AF/Year)	Primary Use(s)	Sponsor*	Status	Remarks
69.	Long Branch Lake/MO	East Fork Little Chariton River	8,000	Municipal and industrial	COE	Construction	
70.	Fort Scott Lake/KS	Marmaton River	See Remarks	Municipal and industrial	COE	Study	27,000 AF/year would be available for use
71.	Hillsdale Lake/KS	Big Bull Creek	See Remarks	Municipal and industrial	COE	Construction	19,000 AF/year available for use

*USBR = U.S. Bureau of Reclamation
MT DNRC = Montana Department of Natural Resources and Conservation
WY WDC = Wyoming Water Development Commission
GPGA = Great Plains Gasification Associates
FmHA = Farmers Home Administration
COE = Corps of Engineers
CI = CENDAK Incorporated
NEB = NEB Water Development Board
LB NRD = Little Blue Natural Resources District
WY = State of Wyoming
DWB = Denver Water Board
CO DNR = Colorado Department of Natural Resources
KS WA = Kansas Water Authority
ND = State of North Dakota
NC = Nokota Company

TABLE 3
PROPOSED WATER WITHDRAWALS FOR OUT-OF-BASIN USES

Project/Location	Water Source	Withdrawal (AF/Year)	Ultimate Use/Location	Remarks
A. ETSI Coal Slurry Pipeline/ Wyoming	Madison Formation in Wyoming or Oahe Reservoir in South Dakota	57,000	Slurry coal to Oklahoma, Arkansas and Louisiana	ETSI currently has permits for 20,000 AF/year of ground water from the Madison Formation in Wyoming. For alternative supply, ETSI is negotiating with the Bureau of Reclamation for 50,000 AF/year from Oahe Reservoir. South Dakota has granted the sponsor permits for Oahe water. The sponsor has also agreed to supply 7,000 AF to communities along the supply pipeline.
B. High Plains Diversion	Lake Francis Case in South Dakota OR	2.3 to 4.3 million	Agriculture and municipal and industrial in Kansas Colorado, Nebraska Oklahoma, New Mexico and Texas.	These are two proposals to supply water to the Ogallala-High Plains area being studied by the High Plains Study Council. The Council's report is scheduled for completion in March 1982.
C.	Missouri River near St. Joseph, Missouri	1.6 to 3.9 million		
D. Texas Eastern Coal Slurry Pipeline/ Wyoming	Oahe Reservoir in South Dakota	20,000	Slurry coal to Texas	Texas Eastern has contacted South Dakota about obtaining a water permit.
E. Exxon Pipeline/ South Dakota	Oahe Reservoir in South Dakota	1.7 million	Coal development in Wyoming and Montana and oil shale development in Colorado and Utah	This proposal is actually two pipelines, one of 600,000 AF for coal development and the other of 1.1 million AF for oil shale development. Exxon has contacted South Dakota about obtaining a water permit.
F. Powder River Pipeline Inc./Wyoming and Montana	Missouri River in South Dakota	20,000	Slurry coal to Great Lakes area	Other water sources being investigated are Yellowstone River and western Missouri tributaries in North and South Dakota. Company's preliminary investigation will be completed in 1982.
G. Sheridan Little Bighorn Group/Wyoming and Montana	Little Bighorn River in Wyoming and Montana	34,000	Slurry coal to foreign coal markets through West Coast ports	It is anticipated that 14,000 AF of water withdrawn will be for municipal and industrial use in Wyoming.
H. Garrison Diversion Unit-- Initial Stage/ North Dakota	Garrison Reservoir in North Dakota	871,000	Agriculture and municipal and industrial in North Dakota	Project under construction but delayed by objections of return flows to Canada and wildlife mitigation activities. Initial development would irrigate 250,000 acres, ultimate program would irrigate 1 million acres and withdraw 2 to 3 million AF/year.

Conclusion

Water has been an important resource in the development of the Missouri River Basin and it will remain an important factor for continued future development. The greatest concerns of most people are how much water is available and what will be the impacts of proposed future withdrawals. While answers to these questions are not definitive at the present time, the Missouri Basin States Association is nearing completion of a study and development of a computerized water accounting system which will provide a valuable tool for evaluating proposed future water uses. The water accounting system is scheduled for completion by October 1982.

Mr. ASHCROFT. The navigational season of the Missouri River has to be curtailed on a regular basis as a result of reduced flows. Additional takings of that water might further restrict navigation which has had to be closed down.

Second, the input from the Missouri River is sometimes valuable in increasing the navigation schedule on the Mississippi above the inflow of the Ohio by about 20 days annually. Depletions of that resource would impair navigation in that area of the Mississippi River as well.

The CHAIRMAN. One point that has been made, and I think made very well, Mr. Ashcroft, in your statement is that water rights are not confined to State boundaries. As I understand the ETSI project is proceeding under existing law. What actions do you see that Missouri and Iowa contemplate with respect to protecting their rights with respect to what actions may be taken on the ETSI pipeline?

Mr. ASHCROFT. I'm commenting on the State of Missouri. We have filed with a number of Federal agencies, including the agencies represented by some of the individuals that have spoken here this morning, relating to the diversion of water in those circumstances. Obviously, there exists the appeals. If they are all denied, the potential of suit to demand compliance with the Flood Control Act of 1944 which is mentioned in the testimony by the assistant attorney general from Iowa.

The ETSI pipeline, while it is not a grand or monumental amount of water, represents a precedent of the potential for this simple upstream taking of water without regard to downstream States. And when the environmental impact statement was assembled on that project, while the comment period was open for those to comment on the pipeline, the source for the water specified was groundwater and downstream States were given to believe that there was less reason for them to be concerned about it.

I think 3 days after the comment period closed on the project the source of the water was switched from groundwater in Wyoming to water to be taken from the Oahe Reservoir in South Dakota which would have an impact on the Missouri River and all the downstream States. And that's one of the reasons that Missouri and other downstream States are so concerned.

Mr. SARCONE. We made some of the comments, and I believe the Corps of Engineers is considering taking comments at this particular time about the intake structure that would be placed in the Oahe Reservoir and the comments have been addressed to that at this particular time.

Other than that, I agree with the statements from the Attorney General.

Senator JOHNSTON. Mr. Ashcroft, you mentioned the New Hampshire case. Have you had occasion to look at the language of the statute under granting States' rights that you talked about?

Mr. ASHCROFT. I have a copy of the case with me and I'd be happy to provide a copy of it for the record.

Senator JOHNSTON. In that case, isn't it a fact that the States' rights language to which you refer did not purport to grant to the State of New Hampshire the right to prohibit the export of electric power in interstate commerce?

Mr. ASHCROFT. Pardon me. Would you restate your question?

Senator JOHNSTON. Isn't it a fact that the States' rights language, which you call States' rights language, did not purport to be an exercise by Congress to grant to the State of New Hampshire the right to prohibit the export of electric power generated from hydroelectric facilities within New Hampshire?

Mr. ASHCROFT. I don't recall specific language saying that the State of New Hampshire would have the right to prohibit the export of power. I'd have at look to the language of the Congress again.

Senator JOHNSTON. I would suggest to you that Congress undertook no such right, that the case is in fact correct as an interpretation of the Commerce power and does not at all derogate from the right of the Congress as we purport to do in this statute, to grant to a State the right to control its water. That case doesn't take away from this statute in this situation at all. I think that case was correct. It simply granted New Hampshire the right to say when, where, and to what extent the hydroelectric facility could be built within the State, but it did not purport to grant to New Hampshire the right to prohibit export because that is clearly within the Commerce power and Congress didn't delegate its authority under Commerce in that case.

Now you're not saying are you that all downstream States ought, as a matter of right, to be able to sign off on any uses of water upstream. If so, I would say, as a resident of Louisiana, we might want to take a look at industrial uses of water and irrigation uses in the State of Missouri. In fact 40 percent of the water in the country comes down the Mississippi River. And you're surely not saying that we ought to have the right to sign off on the uses of all that water upstream, are you?

Mr. ASHCROFT. Downstream States have an interest in the significant diversion of water from the basin, and that there can be such a significant encroachment of such diversions by the Congress or by the Federal Government, that it can impair the ability of downstream States to enjoy the water uses they previously enjoyed.

I think the solution to the problem is for States in the midwest to develop a kind of ability to cooperate and compact as they have in the far West. What I say about this legislation is I don't believe it provides any incentive for development of such compacts. I think this legislation is merely the green light for a State, for instance South Dakota, if you will, to just prior to the time the Missouri River leaves its boundary, to pump as much as it wants out of the basin into Wyoming, if you will, to a coal slurry pipeline which can be diverted all the way around the Missouri River basin down to, as a matter of fact, I believe your jurisdiction in Baton Rouge.

Senator JOHNSTON. Don't you think it's the proper thing to do on each pipeline proposal as it comes along to analyze that proposal, as the State of Missouri and others have done in going through the environmental impact statement process, to determine whether that particular pipeline is any threat? This was done with the ETSI proposal, and I think you fairly concede here, the ETSI pipeline itself taking as it does, as I recall something like the equivalent of 5 percent of the evaporation rate of the Missouri River, is hardly going to be a threat to the Missouri River. But your concern is the precedent?

But if we have a process that insures, as we do here, that States will be able to continue to run their water laws then that process will probably protect the States.

Mr. ASHCROFT. There are a number of concerns I have about the process here and one of the concerns is the way decisions are made by the Federal Government and the bureaucracy. Because it was the very bureaucracy of the Federal Government that betrayed the ability of States to really make a significant comment about the ETSI project. The real source of water was obscured in the EIS until after the comment period was closed. Then in a cooperative effort between South Dakota, Wyoming, and the ETSI people and the Federal Government, it was announced that there was a new water resource. So I don't feel secure in any means in resting upon the bureaucracy to provide us with safeguards.

And second, the State of Missouri, while it had an opportunity, I suppose, to make some comment, had no opportunity to participate in the decision. I think that is unfortunate and inappropriate and I would think we would find a way of resolving the allocation of water resources in the basin which would provide for significant input and participation by downstream States. I don't think this bill provides for that.

Finally, this——

Senator JOHNSTON. Nor does present law.

Mr. ASHCROFT. That's correct. I don't say our current statutory framework gives us in the Midwest who are new to dealing with the problems of water resources, the kind of compact or cooperative effort we need to have. I think we have to have it. I think this bill has a couple of infirmities from that point of view. It doesn't provide incentives for anybody to cooperate on it downstream, and second, it begins immediately.

The first year says an out-of-basin transfer which I think is a very dangerous precedent to take, which is to take water out of the Missouri basin.

Senator JOHNSTON. You understand this bill doesn't set that precedent. That's being done under the present law. The ETSI pipeline and taking out of the Missouri basin water is done under the present law and under State law. It's not done under this bill.

Mr. ASHCROFT. I believe this bill encourages pipelines like ETSI to operate and that's one of the major problems I have with it and that's why I oppose it.

The CHAIRMAN. Thank you. I appreciate your testimony very much.

I might just note that we have five panels to hear from, 17 witnesses, and the last word I had from the floor is that we do not have permission to sit beyond the hour of 2 o'clock, and I hope we can hear all of the witnesses today and give them the opportunity to be heard and give members the opportunity to question.

The chairman will necessarily have to be absent following 12:30. I hope you'll have someone who can chair the hearings following 12:30.

With that, will panel No. 1 please come forward.

I might also note, my entire statement will be inserted in full in the record at the beginning. I gave only a portion of that entire statement.

The statement of all five or six gentlemen and lady who are a part of this panel, all of their statements will be inserted in full in the record, and I would invite each of the witnesses in turn to summarize their statements.

STATEMENT OF CARL E. BAGGE, CHAIRMAN, ALLIANCE FOR COAL AND COMPETITIVE TRANSPORTATION, WASHINGTON, D.C.

Mr. BAGGE. Thank you very much, Chairman McClure.

I am Carl E. Bagge, and I'm here today in my role as the chairman of the Alliance for Coal and Competitive Transportation—ACCT.

On behalf of the many national, regional and local organizations which comprise the alliance, and I refer to the attachment to my formal statement which you've included in the record, which documents approximately 25 to 30 organizations and each of their component State organizations who join us in this presentation.

And I might say, Mr. Chairman, we have something like 25 or 30 statements. In the interest of time we've asked these people to supply for the record, and I've asked that these letters from the various constituent organizations throughout the country be made part of the record.

The CHAIRMAN. They will be made a part of the record.[1]

Mr. BAGGE. I commend you for the leadership that you are providing for the Nation in all energy matters. Something very important is happening here today, Mr. Chairman, and I believe it deserves special notice.

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[1] See the Appendix.

I don't know when there has appeared before you so prestigious and broadly representative a group that is united in the belief that coal is respectable, that coal is important to the energy future of this country, and that coal slurry pipelines must be a part of that future, especially with the enactment in Congress just a year ago of the decontrol of railroad rates.

The panel today represents several members of the alliance: consumer groups, labor unions, coal producers, electric utilities, and other businesses and associations whose diverse and large memberships all believe in the need for more effective competition in the coal transportation sector.

What unifies us is our appreciation of the very significant benefits to be secured; a moderation of monthly electric bills paid by consumers, conservation of limited financial resources of the Nation's senior citizens, employment for the Nation's working force, lower and more stable fuel prices for electric utilities, and more effective utilization of this country's most abundant energy resource.

Mr. Chairman, my statement for the record expands on the importance of competition in the transportation of coal. We also recognize the legitimate concerns that you, Mr. Chairman, and other Senators have over the issues of scarce western water and the impact coal slurry pipelines will have on this water, so we commend you for scheduling a separate day of hearings on the water issue. And you have expressed personally to me your concern about this issue, and we applaud you for taking the time to focus on this, specifically on the second day of hearings.

Mr. Chairman, our distinguished panel today includes the chairman of the National Coal Association and of Consolidation Coal Co. in Pittsburgh, Pa., Mr. Gene Samples.

Mr. Samples will be followed by Marshall McDonald, chairman of Florida Power & Light Co. and immediate past chairman of the Edison Electric Institute, who will outline why invester-owned utilities support the need for coal slurry pipelines.

Mr. Alex Radin appears wearing three hats: First, as executive director of the American Public Power Association; second, as vice president of the Consumer Federation of America; and third, as a spokesman for the National Rural Electric Cooperative Association.

Mr. Dan Mundy of the AFL-CIO, will testify on behalf of the five labor union members of ACCT who view pipeline construction as an opportunity for jobs and as a boost to the Nation's economic health.

Mrs. Lila Cockrell, former mayor of San Antonio, Tex., and now a trustee of the San Antonio City Public Service Board, will provide an account of that city's experience with rail rates when no competition existed for transporting coal to its utility boilers.

We've also submitted detailed statements for the record and have agreed to summarize in the interest of time.

[The prepared statement of Mr. Bagge follows:]

ACCT NEWS

Alliance for Coal and Competitive Transportation

STATEMENT

OF

CARL E. BAGGE

CHAIRMAN,

ALLIANCE FOR COAL AND COMPETITIVE TRANSPORTATION

AND

PRESIDENT,

NATIONAL COAL ASSOCIATION

ON THE

COAL DISTRIBUTION AND UTILIZATION ACT

OF 1981 (S.1844)

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

MAY 10, 1982

WASHINGTON, D. C.

Suite 510/1575 Eye Street, Northwest/Washington, D.C. 20005/(202) 789-2444

Mr. Chairman, I am Carl E. Bagge and I am here today as chairman of the Alliance for Coal and Competitive Transportation (ACCT).

On behalf of the many national, regional and local organizations which comprise the Alliance, I commend you for holding this hearing on the Coal Distribution and Utilization Act of 1981 (S.1844), and also for the leadership that you are providing for the nation in all energy matters.

Something very important is happening here today, Mr. Chairman, and I believe it deserves special notice.

I don't know when there has appeared before you so prestigious and broadly representative a group that is united in the belief that coal is respectable, that coal is important to the energy future of this country, and that coal slurry pipelines must be a part of that future.

The panel today represents several members of the Alliance—consumer groups, labor unions, coal producers, electric utilities, and other businesses and associations whose diverse and large memberships all believe in the need for more effective competition in the coal transportation sector.

What unifies us is our appreciation of the very significant benefits to be secured — a moderation of monthly electric bills paid by consumers, conservation of limited financial resources of the nation's senior citizens, employment for the nation's working force, lower and more stable fuel prices for electric utilities, and more effective utilization of this country's most abundant energy resource.

THE CENTRAL ISSUE IS EFFECTIVE COMPETITION

The central issue before this committee is competition—reasonable and effective competition for the movement of coal from mine to user. It is essential for the American coal industry to compete successfully for its share of energy markets, both here and abroad, both now and in the future.

Coal is the key to America's energy self-sufficiency. Consumption rates are rising and we are optimistic about the future. But this bright picture is covered by a dark cloud—for most of the coal moved by rail, there simply is no feasible alternative transportation mode.

Since the onset of deregulation under the Staggers Rail Act of 1980, we have watched rail rates continue to increase in real terms, while real coal prices at the mine have remained stable. With each rate increase, our competitive edge over other fuels is dulled a little more.

Good old-fashioned competition has never served this country wrong. It is the essence of the free-enterprise system which underpins our social and political philosophies.

ABSENCE OF EFFECTIVE COMPETITION AFFECTS OUR ABILITY TO PARTICIPATE IN FOREIGN AND DOMESTIC ENERGY MARKETS

Not only does coal play an essential role domestically, it continues to gain significance in the world energy market—especially U.S. coal.

Over the past three years coal has added nearly $14 billion to our balance of payments. By the end of the century—just 18 years away—it will be the largest single export commodity.

But rising rail transportation costs in the absence of effective competition have a chilling effect and could jeopardize our ability to compete in this market. World coal buyers want American coal, but not at any price. The ability of U.S. coals to compete in growing export markets will depend to no small extent on transportation costs.

S.1844 PROTECTS OUR NATION'S WATER RESOURCES

We recognize the legitimate concerns that you, Mr. Chairman, and other Senators have over the issues of scarce western water and the impact coal pipelines will have on this water. We believe that S.1844 as drafted not only protects water resources, particularly in the West, but actually strengthens state prerogatives regarding the use of water by granting to each state considerably more protection to control allocation of water resources than now exists.

Both the Senate and House coal slurry bills prohibit the exercise of federal eminent domain authority for obtaining water. They also require that water rights must be obtained according to state substantive and procedural law and allow a state to set terms and conditions on the use of its water. And, very importantly, the bills prohibit the use of the interstate commerce clause to subvert any state water law or regulation.

Mr. Chairman, our distinguished panel today includes the chairman of the National Coal Association and of Consolidation Coal Company in Pittsburgh, Mr. Gene Samples.

Mr. Samples will be followed by Marshall McDonald, chairman of Florida Power and Light Company and immediate past chairman of the Edison Electric Institute, who will outline why investor-owned utilities support the need for coal slurry pipelines.

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Mrs. Lila Cockrell, former mayor of San Antonio, Texas, and now a trustee of the San Antonio City Public Service Board, will provide an account of that city's experience with rail rates when no competition existed for transporting coal to its utility boilers.

ALLIANCE FOR COAL AND COMPETITIVE TRANSPORTATION
5/82

National Organizations

American Association of Retired Persons
American Consulting Engineers Council
American Mining Congress
American Public Power Association
Building and Construction Trades Department, AFL-CIO
Coal Exporters Association
Consumer Federation of America
Eastern Coal Transportation Conference
Edison Electric Institute
International Brotherhood of Teamsters
International Union of Operating Engineers, AFL-CIO
Laborers International Union of North America, AFL-CIO, CLC
Mining and Reclamation Council
National Alliance of Senior Citizens
National Coal Association
National Rural Electric Cooperative Association
National Society of Professional Engineers
Pipe Line Contractors Association
United Association of Plumbers and Pipefitters, AFL-CIO
Slurry Transport Association
Western Coal Traffic League
Western Fuels Association
Youth for Energy Independence

State Organizations

Arkansas Electric Co-op Corporation, Little Rock, Ark.
Association of Louisiana Electric Cooperatives, Baton Rouge, La.
Cajun Electric Cooperative, Baton Rouge, La.
Central Pennsylvania Coal Producers' Association, Ebensburg, Pa.
Coal Operators and Associates, Inc., Pikeville, Ky.
Coal Producers Association of Illinois, Springfield, Ill.
Colorado Mining Association, Denver, Colorado
Florida Federation of Women's Clubs
Illinois Coal Association, Springfield, Illinois
Indiana Coal Council, Indianapolis, Ind.
Kentucky Coal Association, Lexington, Ky.
Keystone Bituminous Coal Association, Pittsburgh, Pa.
Logan Coal Operators Association, Lundale, W.Va.
North Dakota Lignite Council
Ohio Mining and Reclamation Association, Columbus, Ohio
Pennsylvania Coal Mining Association, Harrisburg, Pa.
United Power Association, Elk River, Minnesota
West Virginia Coal Association, Charleston, W. Va.
West Virginia Surface Mining and Reclamation Association

The **Chairman**. Thank you.

Mr. **Bagge**. I call upon Mr. Samples, the chairman of the board of the National Coal Association.

STATEMENT OF R. E. SAMPLES, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, CONSOLIDATION COAL CO., PITTSBURGH, PA.

Mr. **Samples**. Mr. Chairman, I'm Gene Samples. I am chairman and chief executive officer of Consolidation Coal Co. I also serve as chairman of the board of directors of the National Coal Association, and it's on their behalf that I am here today.

We believe that S. 1844 represents a sound approach for granting Federal eminent domain necessary to acquire rights of way for interstate coal pipelines. We believe S. 1844 to be in the Nation's interest.

As noted earlier by Carl Bagge, Chairman of the Alliance for Coal and Competitive Transportation, we need effective competition for the movement of coal in order to keep transportation rates reasonable and help secure the full use of America's coal, both here and abroad. Competition is possible if we enact legislation that facilitates coal pipelines in the manner provided in S. 1844. We need to commence the construction of these pipelines. They will be an important economic shot in the arm, not only for coal, but also for the steel and construction industries.

Therefore, we urge the committee to give this bill the earliest possible consideration.

The benefits of coal pipelines were amply demonstrated by America's first coal pipeline which is owned by my company. The pipeline runs from Cadiz, Ohio, to a location near Cleveland, a distance of 108 miles.

We operated a pipeline from 1957 to 1963. By that time the railroads had introduced trainload rates and so-called unit train concepts.

Certainly this is a clear sign that pipeline competition of the railroads is an effective way to keep coal transportation rates reasonable.

Before the pipeline, the railroads had been raising their freight rates almost yearly for electric utility steam coal shipments from Cadiz, Ohio, to Cleveland. They even raised their rates after the pipeline started their operation in 1957, to a new high of about $3.47 per ton. It doesn't sound like much today, but it was then.

The pipeline transportation rate initially was only $2.20 per ton, a savings of $1.27 per ton. Although the rate had increased to $2.95 by 1963, the electric utility of Cleveland still realized an enormous savings on the 7.1 million annual tons of coal shipped through the pipeline over the 6 years it was in operation.

Of course the obvious result of all of that is lower electric bills for the people of Cleveland. I guess that's the thing we need to keep in mind. The pipeline motivated railroads to be competitive so that by 1963, the railroad had reduced their rate to $1.88 per ton, a reduction of $1.59 per ton from the rate 6 years earlier.

Certainly this experience is convincing evidence that coal pipeline competition with the railroads is effective in keeping transport rates reasonable. Now it is imperative that we open the door to coal pipeline construction by removing the obstacles which exist with pipeline rights-of-ways and eminent domain.

It will enable coal pipelines to be constructed without having insurmountable hurdles caused by property owners, such as railroads, who will not negotiate with pipeline companies on pipeline rights-of-way.

Now, 85 percent of the coal carried by the railroads has no practical alternative. With the rates for transportation accounting for as much as 50 to 75 percent of the coal's total delivered price, effective competition for transportation is clearly warranted.

Mr. Chairman, 20 years ago the President of the United States proposed coal pipeline legislation, stating that,

> Coal pipelines offer possibilities for renewed economic vigor and a hope for increased economic strength for the coal industry. If costs can be lowered in this fashion, all segments of the economy will benefit.

Now we believe these words carry the same important message today. Passage of S. 1844 will fulfill this need and we urge you to move the legislation forward expeditiously.

I thank you for allowing me to testify and I appreciate your views on S. 1844. You have a more detailed statement filed for the record, and I will attempt to answer any questions.

[The prepared statement of Mr. Samples follows:]

NATIONAL COAL ASSOCIATION

STATEMENT
OF
R. E. SAMPLES,
CHAIRMAN AND CHIEF EXECUTIVE OFFICER,
CONSOLIDATION COAL COMPANY
AND
CHAIRMAN OF THE BOARD OF DIRECTORS,
NATIONAL COAL ASSOCIATION

ON THE
COAL DISTRIBUTION AND UTILIZATION ACT
OF 1981 (S 1844)

BEFORE THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

MAY 10, 1982
WASHINGTON, D.C.

Mr. Chairman, my name is R. E. Samples. I am chairman and chief executive officer of Consolidation Coal Company. I also serve as chairman of the board of directors of the National Coal Association. I am appearing before you today on behalf of the National Coal Association. NCA represents coal producers, coal sellers, and other organizations associated with the coal industry.

NCA urges the Congress to act expeditiously to pass legislation which would grant federal eminent domain to assist in assembling rights-of-way required to construct interstate coal pipelines. We believe that S 1844, the Coal Distribution and Utilization Act of 1981, is appropriate legislation for this purpose and urge the committee to report the bill as soon as possible.

In my testimony I will focus on three major issues:

- Greater competition for movement of coal is important in the interest of keeping transport rates reasonable for the transportation services provided.
- Coal pipelines should be allowed to compete with the railroads for coal traffic destined for domestic consumers and export markets.
- The Coal Distribution and Utilization Act is a sound approach to granting federal eminent domain to assist in acquiring rights-of-way required for construction of interstate coal pipelines.

GREATER COMPETITION FOR MOVEMENT OF COAL IS IMPORTANT IN THE INTEREST OF KEEPING TRANSPORT RATES REASONABLE FOR THE TRANSPORTATION SERVICES PROVIDED.

We believe that immediate action is needed to assure that, to the maximum practicable extent, coal carriers must compete for coal traffic, resulting in a mix of coal transportation that is reliable, efficient and reasonably priced. Coal pipelines are a proven method for carrying coal in large amounts over long distances economically, with no disruptive impact on communities traversed. The granting of federal eminent domain for interstate coal pipelines is essential to prevent them from being stymied by railroads who wish to block their construction and thus to avoid competition for coal movement.

Where there are no navigable rivers, railroads possess heavy dominance over coal transportation. For instance, a 1979 NCA study which I have appended to my statement documents that 85 percent of the coal carried by the railroads is captive and has no practical alternative transportation available. To say that railroad market dominance does not exist because coal could be moved by trucks simply does not make sense. Certainly, no reasonable person would say that it is practical to utilize 500 to 750 trucks instead of one railroad unit-train to move 10 to 15 thousand tons of coal five hundred, one thousand or more miles.

Therefore, we must have the ability to construct coal pipelines in order to assure competition for coal traffic. Pipelines will allow market forces in the transportation sector to keep transport rates reasonable and coal transportation service reliable and efficient. Competition, not government regulation, is the best way to assure rate reasonableness -- an objective that must be met to keep coal competitive in the domestic and world markets for energy. We must not let coal's captivity to the railroads result in unreasonably high rail rates. The result would be inflated coal prices, less than full use of America's coal here and abroad, unfortunate losses in the U.S. balance of payments in international trade, and higher consumer prices for electricity.

NCA recognizes that railroads have, and will continue to have, an important role in moving coal and other bulk commodities. The railroads carry about five tons out of every seven and one-half tons of coal produced today. The coal industry's overriding concern is that coal shippers have no options with regard to competitive long-haul inland transportation in most instances. With transportation already often accounting for 50 to 75 percent of the delivered price of coal, it is imperative that all readily available transportation technologies be employed to keep transport rates reasonable.

NCA forecasts U.S. coal production to increase to a record 880 million tons this year, up nearly 10 percent from the strike-depressed level of 802 million tons in 1981 and up almost seven percent from 1980. Rapidly growing overseas steam coal shipments are forecast by NCA to increase from the record 33 million tons last year to 37 million tons, 12 percent more, in 1982. Accompanying this growth in coal production will be substantial increases in the demand for coal transportation -- a situation that we expect to continue in future years as America's coals find expanding markets here and abroad. The railroads certainly will find that they are called upon to move significantly higher coal tonnages to domestic user destinations and to deep draft ports for shipment overseas. And, with coal production in the U.S. expected to increase from an estimated 880 million tons this year to much higher levels in this decade, it is clear that much of the greatly increased level of annual coal production expected in the 1980s will be handled by the railroads.

COAL PIPELINES SHOULD BE ALLOWED TO COMPETE WITH THE RAILROADS FOR COAL TRAFFIC DESTINED FOR DOMESTIC CONSUMERS AND EXPORT MARKETS.

Coal pipelines potentially represent the most broadly usable source of effective competition with railroads for coal traffic across the U.S. in the 1980s and beyond. They are neither novel nor new. One such pipeline, the Cadiz Pipeline, operated for several years in Ohio. Another, the Black Mesa Pipeline, is functioning today with a capacity for carrying five million tons of coal annually about 275 miles through a portion of the southwestern part of the United States.

The Cadiz Pipeline was America's first coal pipeline. It is owned by my company and runs from Cadiz, Ohio to a location near Cleveland, a distance of 108 miles. We operated the pipeline from 1957 to 1963 by which time the railroads underpriced it by introducing trainload rates and eventually the concept of coal unit trains. Certainly this is a clear and positive sign that competition with the railroads for coal transportation has demonstrated the likelihood of keeping transport rates reasonable and improving transportation service.

The cost savings benefits of coal pipelines have been amply demonstrated by the Cadiz pipeline. The railroads had been raising their freight rates almost yearly for electric utility steam coal we were shipping from Cadiz, Ohio to Cleveland. They even raised their rates after the pipeline had just started operation in 1957 to a new high of $3.47 per ton. The pipeline transportation rate was initially only $2.20, a savings of $1.27 per ton. Although the rate had increased to $2.95 by 1963, the utility realized an enormous savings on the 7.1 million tons of coal shipped through the pipeline over the six years it was in operation. The obvious result was lower electric bills for the people of Cleveland.

To improve their competitive position with respect to the coal pipeline, by 1963 the railroads had reduced their freight rate to $1.88 per ton, a reduction of $1.59 per ton from the rate in effect six years earlier. Moreover, the reduced rate applied not only to the coal that was being transported in the pipeline, but also to coal we were shipping to other electric utility plants. Thus, the total savings amounted to $9.5 million a year, and, even though the rail rate went up to $2.39 in September of 1973, this still amounted to a $1.08 savings per ton over the rate charged in the mid-1950s. Again the result was that the people of Cleveland were able to enjoy lower electric bills.

Thus, as strange as it may seem, the pipeline also helped the railroads by forcing them to become more efficient. In the past, railroad cars would often be moved from one marshalling yard to another and left sitting on sidings for a considerable length of time. This was a serious waste of capital because the rolling stock was used only about ten percent of the time. The competitive force of the pipeline resulted in the development trainload rates and the unit train concept in which rail cars are loaded without actually stopping the train. With this new found efficiency, the railroads were able to maintain lower freight rates than would have otherwise been possible and were still able to make a reasonable profit. Clearly, the effectiveness of the Cadiz pipeline has benefited the country by stimulating broad use of coal unit trains and their economies of scale.

The Black Mesa Pipeline in operation today brings coal across Arizona to a utility plant in southern Nevada, and the pipeline is owned and operated by the Southern Pacific Company which also owns a Class I railroad. When asked about the operations of the Black Mesa pipeline during a congressional hearing, the previous chairman of the Interstate Commerce Commission indicated that the ICC, under whose jurisdiction coal pipelines now fall, had no complaints about rates or service from any of the parties involved. Obviously, therefore, coal pipelines represent most satisfactory transportation systems for coal suppliers, shippers, receivers, and transporters, as demonstrated by present circumstances.

It is not necessary to burden the record of these hearings with a recitation of the merits of the coal pipeline. Our interest is not in the pipeline _per se_, but rather in its availability when economics, technology and market forces support its use. In order for this to occur, we believe that unrealistic obstacles should not be allowed to prevent this method of transportation from competing on an equal footing with other transportation modes.

It is not in the public interest to deny coal pipelines their desirable and appropriate place in the mix of coal transportation systems simply because the dominant transportation mode, the railroads, are unwilling to face such competition and create barriers to pipeline construction by refusing to negotiate reasonable agreements on pipeline crossings of railroad property. It is often impossible to assemble coal pipeline rights-of-way without eminent domain. We believe that inasmuch as the _federal_ government has the responsibility for _interstate_ commerce, it is proper for the _federal_ government to remove such obstacles by granting _federal_ eminent domain required to assemble rights-of-way for construction of _interstate_ coal pipelines.

Another compelling argument in support of granting federal eminent domain for interstate coal pipelines is the recently granted authority for railroads to furnish contract service in addition to tariff service for specific traffic. The Staggers Rail Act of 1980, effective October 1, 1980, for the first time in the law on interstate commerce has clearly provided that rail carriers and shippers may enter into contracts which are essentially unregulated, for the movement of certain freight between specific traffic originations and terminations. Contracts may include terms and conditions which cover rates, service, equipment, and other elements which pertain to individual freight and commodity movements. Thus, rail carriers are authorized to negotiate contracts with coal shippers so that coal supply systems including provision of essential transportation can be planned and managed in an efficient, cost effective manner over extended periods of years.

This 20-month old change in the law on interstate commerce to enable and encourage railroad contract transportation service has been utilized already to a substantial degree for the movement of various classes of railroad freight and commodities, including coal, by railroads and shippers across the U.S. Contract service by now is a widely accepted practice -- one that makes it entirely possible for railroads to compete with pipelines for coal traffic. Therefore, not only are railroads physically capable of providing efficient and reliable coal transportation services, they also have been given the ability to execute transportation contracts which, among other things, stand to avert having valuable traffic, such as coal, diverted to other transport modes, for example, pipelines. With this in mind, we find no justifiable reasons for denying eminent domain, essential to facilitating construction of coal pipelines.

THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981 (S 1844) REPRESENTS A SOUND APPROACH TO GRANTING FEDERAL EMINENT DOMAIN TO ASSIST IN ACQUIRING RIGHTS-OF-WAY REQUIRED FOR CONSTRUCTION OF INTERSTATE COAL PIPELINES.

S 1844 is a major step forward in assuring full utilization of our nation's most abundant energy resource, coal. The purpose of the legislation is to facilitate the development of interstate coal pipeline distribution systems that are determined to be in the national interest. As noted earlier in my testimony, coal pipelines are viable transportation alternatives to railroad movement of coal, much needed alternatives in order to provide effective competition for coal transportation and thus keep transport rates reasonable.

The bill properly makes the determination of whether a coal pipeline distribution system is in the national interest subject to findings with respect to need for alternative coal transportation systems and enhancement of competition for movement of coal to serve various markets, among other factors. When found to be in the national interest, an interstate coal pipeline distribution system, under S 1844, would be granted federal eminent domain only for acquisition of rights-of-way. Decisions on the use of water are left to provisions of state laws and regulations and any interstate compacts which govern the use of water.

At this time only ten states have enacted statutes furnishing eminent domain for coal pipelines: Florida, Louisiana, Montana, North Carolina, North Dakota, Ohio, Oklahoma, Texas, Utah and West Virginia. These statutes vary considerably in scope and conditions pertaining to use of eminent domain. This situation makes their application for purposes of assembling rights-of-way for interstate coal pipeline distribution systems difficult. States are not likely to rearrange their statutes for the sake of uniformity. And, it appears most improbable that enough additional states will pass compatible statutes otherwise required to enable interstate coal pipeline distribution systems to acquire sufficient continuous rights-of-way.

Federal eminent domain for interstate coal pipelines obviates these difficulties, facilitates pipeline construction, and stimulates competition by railroads and pipelines, thereby gaining the advantages which market forces furnish in terms of reasonable prices and efficient service. In fact, such competition is highly conducive to significant further deregulation of transportation, particularly the railroads.

In summary, we believe that the competitive advantages realized through granting federal eminent domain for interstate coal pipelines, bringing substantial benefits to users of coal and savings to the public, are clear and well documented. Furthermore, the railroads are in a position to compete effectively with coal pipelines because of the deregulation enacted 20 months ago under the Staggers Rail Act. And, the gains made possible by granting federal eminent domain to enhance private sector transportation competition for the movement of coal require no public funds and do not necessitate governmental intrusion into the transportation sector.

Mr. Chairman, twenty years ago the President of the United States, in proposing coal pipeline legislation, stated that coal pipelines "offer possibilities for renewed economic vigor and hope for increased economic strength for the coal industry. If costs can be lowered in this fashion, all segments of the economy will benefit."

The coal industry believes that these words carry the same message today. Passage of S 1844 is imperative. Mr. Chairman, I will be glad to respond to any questions.

NATIONAL COAL ASSOCIATION

STUDY

OF

CAPTIVE COAL SHIPMENTS BY RAIL

National Coal Association
May 1979

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EXECUTIVE SUMMARY

- Coal producers have historically depended on the railroads to transport most of their products from mine to markets. In many cases, rail transport is the only available form of transportation. Projected increases in coal production and use will increase this dependence.

- The "captive shipper" issue is the single most important among the many issues raised by proposed rail deregulation legislation.

- The survey conducted by NCA in May 1979 revealed that nearly 85 percent of the coal produced in the U.S. and shipped by rail was captive.

- The survey pointed out that the captive shipper problem existed in every coal producing region, market, and movement.

- Coal shipments to electric utilities, the largest consumer for coal, were found 83 percent captive to rail.

- Interstate movement, representing nearly 75 percent of coal surveyed, was 87 percent captive. Approximately 89 percent of the unit train shipment was captive.

- The western coal producing states were found most vulnerable to captivity. Restricted access to highways and waterways and shipment of large quantities over long distances are all contributing factors to western coal being 98 percent captive to rail.

- The transportation alternative to rail transport of coal would cost the coal shippers approximately 3 times or 300 percent of the 1977 average rail cost.

BACKGROUND

In 1977, about 691 million tons of coal were produced in the U.S., and production is expected to be about 715 million tons in 1979. Two-thirds of this coal production is transported by rail. Projections made by the Department of Energy indicate that a total of 990 million to 1,188 million tons of coal will be produced in 1985. With the expected increase in production, railroads will probably be called upon to haul 50 percent more coal than at present and more than double their current western traffic.

Since coal shippers are heavily dependent upon rail transportation, there has been considerable interest in proposals for railroad deregulation. Any changes resulting from deregulation which affect coal hauling rates or availability or quality of service can have a major impact on coal producers and users.

Among the issues raised by proposed deregulation legislation, the "captive shipper" situation has emerged as the single most important issue. Reasons are:

- There are no alternative modes of shipment and no alternative carriers for a large share of the coal now being produced and used.
- "Captive shippers" would face potentially large rate increases.
- The shipper would bear the burden of proof as to "captivity" and injury for higher rates and the higher rates would remain in effect while relief was sought.

The Administration's legislative proposal (S. 796) presumes the existence of competition for a shipper's business.

NCA SURVEY

Relatively little data has been assembled on the extent of coal shipper captivity. In an effort to improve the quality of data on this issue, NCA conducted a survey designed to develop estimates of the extent and potential effects of the "captivity" problem.

- The Approach:

Data covered in the survey are for 1977 since that was the latest 12-month relatively "normal" period for which data are available. The 1978 coal shipments were interrupted by the prolonged coal strike during the first quarter and again by the rail strike during the latter part of the year. Coal transportation patterns may have been affected during that period for the same reason.

Information collected in the survey focused on coal shipments by rail. Data were broken down by states, markets, and types of movements. Captive portions of the rail shipments for the same categories were also collected.

If captive conditions existed during the time period in question, companies were asked to supply average rail cost and the estimated additional cost that would be required for switching from existing rail carriers to the next best alternative.

- Definition of Captivity:

There is little agreement as to the exact definition of "captive." For purposes of the survey, NCA developed a definition which would (a) be accepted as objective and (b) include what NCA regards as the core of the captivity problem -- the possible injury to the unprotected shipper. We recognize that the definition is somewhat arbitrary. The definition of 'captivity' is based on the two key elements:

(1) the element of market control of the carrier over the shipper, as measured by the 'single rail carrier' criterion; and

(2) the kind of transportation alternatives available to the shipper or the mine. For example, we feel that captivity exists when the transportation alternatives are so costly that adopting them would cause serious injury to the competitive position of the shipper.

Therefore, we have defined captivity to exist when both of the following conditions are present:

(1) a single rail carrier represents the only present transportation alternative for the entire shipment, or a substantial share of the route, for the shipment in question; and

(2) the "next best" future transportation alternative (other rail carrier, motor or water carrier) is one which would cause injury to the shipper's competitive position if forced to adopt that alternative.

- Discussion of Survey Findings:

A total of 43 companies responded to the survey. These companies, which reported coal production in 17 states, produced a total of 291 million tons in 1977. This is about 42 percent of 1977 total U.S. production. According to the NCA survey, two-thirds of the tonnage, or 193 million tons, were shipped by rail. Captivity conditions were found to exist in a high degree. Nearly 85 percent of the coal shipments by rail were captive. Summary data on rail shipments of coal from the survey are shown below.

Type of Market	Percent Captive
• Utility	83.30%
• Steel	85.83
• Industrial	75.05
• Exports	93.19
Total	84.60%

		Percent of total Rail Shipments
Unit Train:	89.22%	40.55%
Interstate movements:	87.37	74.60
Intrastate movements:	69.10	25.40

Average Rail Cost: $ 6.27 per ton
Average Alternative Cost (next best): 18.69 per ton
Alternative reported available (including higher cost alternative) - 40.71% of total tonnage

A. The shipment of coal is greatly dependent on captive rail transport.

- Approximately 291 million tons of coal production were reported to the survey, representing 42 percent of 1977 total U.S. production.
- Two-thirds of the reported tonnage or 193 million tons was shipped by rail.
- Nearly 85 percent of the coal produced in the U.S. and shipped by rail was captive.
- The average length of haul for rail shipments of coal was 247 miles.
- The next best transportation alternative, to which 41 percent of all respondents gave an answer, would cost coal shippers almost 300 percent of the 1977 average rail cost.

B. Captive shipper problems generally are serious in all types of coal markets.

- Electric utilities, which received 71 percent of rail shipments in 1977, were 83 percent captive.
- Coal shipments to steel plants, which accounted for nearly 13 percent of total rail shipments of coal, were 86 percent captive.
- Approximately 75 percent of coal shipments by rail for industrial use was captive.
- The export market, which accounted for 10 percent of rail shipments in 1977, was shown to have the highest percent captivity in all market types--93 percent captive.

C. The magnitude of captivity varied among coal producing regions.

1. Western Region - Includes coal producing states west of the Mississippi River.

- Approximately 50 million tons of coal produced in the Western Region was reported to the survey, representing 7.2 percent of 1977 total U.S. production.
- Sixty percent of the reported tonnage or 30 million tons of coal was shipped by rail.
- More than 98 percent of the coal produced in the Western Region and shipped by rail was captive.
- The average length of haul for rail shipments of coal in this region was 311 miles.
- The next best transportation alternative would cost coal shippers in the Western Region 230.6 percent of the 1977 average rail cost.

2. Central Region - Includes Illinois, Indiana, and West Kentucky.

- Approximately 94 million tons of coal produced in the Central Region was reported, representing 13.6 percent of 1977 total U.S. production.
- Nearly 62 percent of the reported tonnage or 58 million tons of coal was shipped by rail.
- About 58 percent of the coal produced in the Central Region and shipped by rail was captive.
- The average length haul for rail shipments of coal in this region was 134 miles.
- The next best transportation alternative would cost coal shippers in the Central Region 260.9 percent of the 1977 average rail cost.

3. Appalachian Region - Includes all other states not covered in the 2 above mentioned regions.

- A total of 147 million tons of coal produced in the Appalachian Region was reported, representing 21.3 percent of 1977 total U.S. production.
- Nearly 72 percent of the reported tonnage or 105 million tons of coal was shipped by rail.
- More than 95 percent of the coal produced in the Appalachian Region and shipped by rail was captive.

- The average length of haul for rail shipments of coal in this region was 291 miles.

- The next best transportation alternative would cost coal shippers in the Appalachian Region 336.9 percent of the 1977 average rail cost.

D. A high degree of captivity was found for all types of rail movements.

- Approximately 41 percent of coal shipments by rail was moved by unit trains in 1977. Of the total unit train movements, 89 percent was considered captive.

- Interstate movements accounted for nearly 75 percent of total rail tonnages, and more than 87 percent of the interstate tonnage was found captive.

- Intrastate movements, which represented 25 percent of the rail shipments, were 69 percent captive.

- About one-fourth of the coal moved by rail was carried in privately owned cars (owned by shippers or customers); more than 75 percent of that was reported captive.

Detailed data for the U.S. and all three regions covered by the survey are presented in the Appendix.

CONCLUSION

The survey revealed that the captive shipper problem existed in practically every coal producing region, market and movement. Coal producers depend heavily on the railroads to get their products to the utility, steel, and industrial consumers.

In many cases, rail transport is the only available method for transporting coal to its markets. In western states, for example, coal must be shipped in large quantities over long distances before reaching its final destination.

The survey shows that there is very little or no competition for the movement of coal. Transportation costs already constitute a major portion of the delivered price of coal. Higher rail rates due to rail deregulation would lead to even higher cost of coal to the utility, steel mill and industrial coal user and to our customers overseas. Higher rail rates would eventually be reflected in higher costs of electricity and other consumer products and would make U.S. coals even less competitive in the world market.

APPENDIX I.

"CAPTIVE" COAL SHIPMENTS BY RAIL IN 1977

AREA	U.S. TOTAL
NO OF MINES	386
TOTAL 1977 PROD (1000)	290,995
% OF REPORTED TOTAL PROD	100.00
% OF 1977 U.S. PROD	42.09

		TONS (1000)	% CAPTIVE	AVG HAUL MILES
RAIL SHIPMENTS BY MARKET	UTILITY	137,312	83.30	
	STEEL	24,487	85.83	
	INDUSTRIAL	12,154	75.05	
	EXPORTS	19,321	93.19	
	TOTAL	193,277	84.60	247
RAIL SHIPMENTS BY TYPE	UNIT TRAIN	78,382	89.22	347
		CARS* (1000)	% CAPTIVE	
	PRIVATE CARS	519	75.53	
	RAIL CARS	2,192	87.61	
		% TONS	% CAPTIVE	
	INTERSTATE	74.60	87.37	308
	INTRASTATE	25.40	69.10	70
RAIL COST & ALTERNATIVES		% REPORTED**	$/TON	
	AVG COST (RAIL)	37.43	6.27	
	AVG COST (AL'TIVE)	32.99	18.69	
	ALTERNATIVES			
	TOTAL REPORTED	40.71		
	TRUCK ONLY	37.56		
	TRUCK/BARGE	2.61		
	TRUCK/RAIL	0.54		

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* Number of carloads

** Percent of total sample (in terms of tons) reporting "cost" and "alternative" data

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                          ************************************
                          AREA                     WESTERN U.S.
                          NO OF MINES                        26
                          TOTAL 1977 PROD (1000)         49,857
                          % OF REPORTED TOTAL PROD        17.13
                          % OF 1977 U.S. PROD              7.21
                          ************************************

                                               TONS   % CAPTIVE   AVG HAUL
RAIL SHIPMENTS BY MARKET                      (1000)                 MILES
                          UTILITY             28,682     98.06
                          STEEL                  306    100.00
                          INDUSTRIAL           1,084    100.00
                          EXPORTS                  0      0.00
                                              ======      =====
                          TOTAL               30,071     98.15        311
---------------------------------------------------------------------------
  RAIL SHIPMENTS BY TYPE
                          UNIT TRAIN           9,210     93.81        912

                                                CARS  % CAPTIVE
                                              (1000)
                          PRIVATE CARS           172     96.61
                          RAIL CARS              332     95.88

                                             % TONS  % CAPTIVE
                          INTERSTATE           81.97     92.85        373
                          INTRASTATE           18.03     95.60         36
---------------------------------------------------------------------------
RAIL COST & ALTERNATIVES                  % REPORTED    $/TON

                          AVG COST (RAIL)      31.88      8.13
                          AVG COST (AL'TIVE)   19.74    18.75

                          ALTERNATIVES
                             TOTAL REPORTED    33.55
                             TRUCK ONLY        33.55
                             TRUCK/BARGE        0.00
                             TRUCK/RAIL         0.00
---------------------------------------------------------------------------
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APPENDIX 3.

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                                   ***********************************
                                   AREA                     CENTRAL U.S.
                                   NO OF MINES                        77
                                   TOTAL 1977 PROD (1000)         93,993
                                   % OF REPORTED TOTAL PROD        32.30
                                   % OF 1977 U.S. PROD             13.60
                                   ***********************************

                                                      TONS   % CAPTIVE    AVG HAUL
RAIL SHIPMENTS BY MARKET                             (1000)                   MILES
                                   UTILITY           52,888      59.62
                                   STEEL                930       3.87
                                   INDUSTRIAL         3,984      47.16
                                   EXPORTS                0       0.00
                                                     ======     ======
                                   TOTAL             57,805      57.86          134
                                   ------------------------------------------------
  RAIL SHIPMENTS BY TYPE
                                   UNIT TRAIN        22,821      89.22          217

                                                      CARS   % CAPTIVE
                                                     (1000)
                                   PRIVATE CARS         224      75.53
                                   RAIL CARS            575      87.61

                                                    % TONS % CAPTIVE
                                   INTERSTATE         55.70      87.37          197
                                   INTRASTATE         44.30      69.10           55
                                   ------------------------------------------------
RAIL COST & ALTERNATIVES                         % REPORTED    $/TON

                                   AVG COST (RAIL)    39.12       3.76
                                   AVG COST (AL'TIVE) 39.12       9.81

                                   ALTERNATIVES
                                      TOTAL REPORTED  42.62
                                      TRUCK ONLY      39.33
                                      TRUCK/BARGE      3.29
                                      TRUCK/RAIL       0.00
                                   ------------------------------------------------
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APPENDIX 4.

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                    ****************************************
                    AREA                        APPALACHIA
                    NO OF MINES                        283
                    TOTAL 1977 PROD (1000)         147,145
                    % OF REPORTED TOTAL PROD         50.57
                    % OF 1977 U.S. PROD              21.28
                    ****************************************

                                           TONS  % CAPTIVE   AVG HAUL
RAIL SHIPMENTS BY MARKET                  (1000)                MILES
                    UTILITY               55,742    98.09
                    STEEL                 23,251    88.92
                    INDUSTRIAL             7,086    87.52
                    EXPORTS               19,321    93.19
                                          ======    =====
                    TOTAL                105,401    95.40         291
                    -------------------------------------------------
  RAIL SHIPMENTS BY TYPE
                    UNIT TRAIN            46,351    92.58         299

                                           CARS  % CAPTIVE
                                          (1000)
                    PRIVATE CARS             123    91.86
                    RAIL CARS              1,285    95.36

                                        % TONS % CAPTIVE
                    INTERSTATE             82.86    90.84         330
                    INTRASTATE             17.14    97.35         101
                    -------------------------------------------------
RAIL COST & ALTERNATIVES              % REPORTED    $/TON

                    AVG COST (RAIL)        38.08     7.24
                    AVG COST (AL'TIVE)     33.40    24.39

                    ALTERNATIVES
                       TOTAL REPORTED      41.71
                       TRUCK ONLY          37.74
                       TRUCK/BARGE          2.98
                       TRUCK/RAIL           0.99
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The CHAIRMAN. Thank you. I'm always delighted to see one utility testifying about the benefits of competition for another utility.

The next witness, and before turning to the next witness I might just indicate that we now have permission to sit this afternoon, and with that permission having been granted it would be my intention to recess the hearing following the presentation of this panel, and we will reconvene then at 1:45 or 2 o'clock, depending on when we finish with this panel.

The next witness is Mr. McDonald.

STATEMENT OF MARSHALL McDONALD, CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER, FLORIDA POWER & LIGHT CO., MIAMI, FLA.

Mr. McDONALD. My name is Marshall McDonald, chairman and chief executive officer of Florida Power & Light Co.

I appreciate the opportunity to come before you and the gentlemen of your committee, representing Florida Power & Light Co., the Florida State Chamber of Commerce and the Edison Electric Institute which is a national association of investor-owned electric utility companies.

Our companies number approximately 190 and provide approximately 77 percent of all the electric power purchased in the United States.

We strongly support enactment of S. 1844 which would authorize and facilitate the development of coal slurry pipelines. I will summarize my comments because you do have a copy of them in full. I would like, with your permission to insert for the record letters from my colleagues endorsing the coal slurry pipeline legislation.

The CHAIRMAN. Without objection they will be included.[1]

Mr. McDONALD. We're the captive shippers of the railroads. Cost impacts on our customers from this situation is tremendous. As Mr. Samples has commented, as early as 1977 about 85 percent of the coal transported in this country was captive to the railroads.

As the consequence of deregulation and the absence of competition in the coal transportation market, the railroads are now in a position to force captive electric utilities and industrial users of coal to often pay significantly higher prices for hauling the coal than justified by the cost in order to enable the railroads to make up for insufficient revenues from shipments other than coal.

The electric utilities in the United States consume approximately 80 percent of the coal that is burned in the United States and therefore we are particularly sensitive to the transportation costs which in turn are passed along to the consumers of electricity in monthly electric bills, and we therefore are presenting this to you not as companies, but as the spokesmen standing in for our millions of customers.

If the coal slurry pipelines were able to provide effective competition in the transportation of coal the railroads could no longer unilaterally set the terms and the conditions for coal haulage. This would result in a lower price for electricity to ratepayers which is our primary concern.

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[1] See the Appendix.

In conclusion we believe that this legislation, S. 1844, will benefit our customers with lower energy bills. Thank you very much.

[The prepared statement of Mr. McDonald follows:]

STATEMENT OF

MARSHALL MCDONALD

CHAIRMAN OF THE BOARD AND
CHIEF EXECUTIVE OFFICER
FLORIDA POWER & LIGHT COMPANY

Before The

SENATE COMMITTEE ON ENERGY AND
NATURAL RESOURCES

May 10, 1982

My name is Marshall McDonald, Chairman of the Board and Chief Executive Officer of Florida Power & Light Company. I appreciate the opportunity to come before you today to represent Florida Power & Light and the Edison Electric Institute, the national association of investor-owned electric utility companies, on the issue of federal eminent domain for coal slurry pipelines. Member companies of the Institute, which number over 190, provide 77% of all electric power purchased in the United States.

Mr. Chairman, we strongly support enactment of S. 1844 which would authorize and facilitate the development of coal slurry pipelines. Slurry pipelines can constitute a much needed supplementary means of transporting the large volumes of coal that will be required as electric utilities and industrial firms replace their existing gas and oil-fired boilers with those capable of using coal.

The reason the electric utility industry needs coal slurry pipelines is basically simple: we are captive shippers to the railroads. The cost impact on our customers from this situation is tremendous. For example, Southern Company's per ton cost of coal jumped 13% to $44 last year. The volume of coal burned was up one million tons from the previous year's 36 million tons. Granted, some of this cost increase was caused by labor contracts, but higher rail transportation rates also played a major part in increasing the costs.

As a consequence of deregulation and the absence of effective competition in the coal transportation market, the railroads are now in a position to force captive electric utilities and industrial users of coal to often pay significantly higher prices for hauling the coal than justified by the cost in order to enable the railroad to make up for insufficient revenues from shipments other than coal. Coal slurry pipelines can and must provide for an alternative transportation system for coal users in order to provide competition. The current transportation market is a long way from being competitive. In 1975, 85% of coal transported in this country was "captive" to the railroads. The railroads are projected to move 90% of the coal by 1990,1/ according to a government study. Barges and ships haul coal to and from areas near waterways, and trucks are used for short distances. However, most coal mines are served by only one railroad and there is little competition among the different railroad companies.

As the consumer of 80% of the coal burned in the U.S., the electric utilities are particularly sensitive to coal transportation costs which are in turn passed along to the consumers of electricity in monthly electric bills. The owner of a proposed power plant, or one contemplating conversion to coal, must decide upon the package (coal source, transportation mode, and powerplant sites) that minimizes total cost. Long-term coal supply contracts are preferred to permit increased efficiency through

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1/ National Energy Transportation Study (NETS): A Preliminary Report to the President by the Secretary of Transportation and the Secretary of Energy, 33 (July 1980).

the use of boilers that are custom-designed to the specifications of a particular coal deposit.

Although authorized by the Staggers Rail Act of 1980 to enter into long-term contracts for coal haulage, the railroads have in most cases refused to do so. For example, New England Power Service, serving parts of Massachusetts, tried for over a year to enter into a contract with the Chessie System Railroad for shipping some one million tons of coal annually from the Island Creek Coal Company's Upsher Mine at Ten Mile, West Virginia to Baltimore, Maryland. The Chessie System refused to sign a contract, without fear of losing this business, and realizing that over the long term the rates will be higher without a contract. Therefore, New England Power System remains a victim of arbitrary pricing by the railroads because Chessie would not sign a contract. This kind of market dominance makes it difficult for a utility to forecast its expenses and fulfill its obligations to provide reliable service to its customers.

If coal slurry pipelines were able to provide effective competition in the transportation of coal, the railroads could no longer unilaterally set the terms and conditions for coal haulage. The railroads would have to compete with pipelines not only for the business itself, but also for the terms and conditions of the contracts, such as rates, escalation clauses, and duration of the contracts. This would result in a reliable supply of competitively priced coal for utilities, and a lower price for electricity to ratepayers.

In conclusion, we believe that this legislation, S. 1844, will benefit consumers through lower energy bills, provide jobs to Americans in various industries, from coal mining to the manufacture of earthmoving equipment, and reduce this country's foreign trade deficit by replacing imported oil with domestic coal for use at home and abroad. Its passage in the national interest should not be defeated because of the narrow, special interest of the railroads.

Mr. Chairman, I appreciate this opportunity to appear before you and this committee on such an important issue. I would be pleased to answer any questions you or any of the Senators may have.

The Chairman. Thank you. We appreciate your statement.

Mr. Georgine?

STATEMENT OF ROBERT A. GEORGINE, PRESIDENT, BUILDING AND CONSTRUCTION TRADE DEPARTMENT, AFL-CIO, WASHINGTON, D.C., AS PRESENTED BY DAN MUNDY

Mr. **Mundy**. Mr. Chairman, my name is Dan Mundy. With your permission I'd like to give Mr. Georgine's testimony.

I previously testified on a number of occasions. So has President Georgine. However, today, for a very particular reason, President Georgine had wished to be here. As you can see, this panel is composed of some of the most important people in this industry in the United States. However, we have other matters and its timing is such, another concern of ours is our nuclear industry and he was having a meeting with that industry. It had been prearranged and he was unable to make it.

I'll summarize. I would like also to submit, with your permission, a statement from the Laborers International Union, one of our affiliates, and I brought several copies.

The **Chairman**. I have a copy of that statement. It will be made part of the record.[1]

Mr. **Mundy**. My name is Dan Mundy and I offer this testimony on behalf of President Robert Georgine and the Building and Construction Trade Department which represents 4.3 million construction workers that live and work in the community of the United States and Canada.

The unemployment rate in the industry is more than double the high national average. The construction industry has been one of the primary victims of the current economic downturn. Workers in the construction industry are not alone in their suffering. Today there are more people out of work than at any time since the Great Depression.

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[1] See the Appendix.

Such unemployment has enormous social costs both in terms of the hardships endured by these unemployed workers and their families and in terms of the enormous waste of productive potential which these unemployed represent. In addition, there are many economic costs, including the burden placed on the unemployment insurance system by the large number of unemployed workers.

The present level of unemployment has serious implications for the long-term health of the economy. And let's consider the construction industry. Within the next decade, our country will need to undertake a variety of major construction programs to provide sufficient housing, to provide for new industrial capacity, and to rebuild our aging transportation system. Such programs will require large numbers of trained and experienced construction workers and we have that work force.

Out of our labor management apprentice programs come first-class craftsmen. Out of these programs come the highly trained and flexible work force which is required to meet the ever-changing needs of this industry. But if present trends continue this work force may very well not be there when it is needed. Skilled construction workers can quickly acquire or possess skills which are needed in many other industries.

One result of the present situation may be an erosion of the pool of skilled construction workers which in turn will lead to serious shortages. Once interest rates come down, new construction activities increase. The construction of coal slurry pipelines would help prevent an erosion of the pool of skilled construction workers.

On pipeline construction, the greatest number of man-hours of work would go to laborers, with the pipefitters and operating engineers next, followed by the teamsters and other trades. The proposed 1,300-mile ETSI pipeline, now closest to the construction stage after years of struggle, estimates 2 years of work. They expect to employ nearly 7,000 people, including 3,255 laborers, 2,100 pipefitters, the same number of operating engineers, 840 teamsters, 654 millwrights, 520 electricians, 340 carpenters, and others. The Coalstream pipeline, which would run from Appalachia and Illinois to Florida and Georgia, projects 10,000 construction jobs, and 6,000 to maintain the pipeline. These jobs are desperately needed.

It is not only workers in the depressed construction industry who would benefit from pipeline construction. If all of the increased coal use resulting from pipeline transportation to Georgia and Florida were to be produced from mines in Kentucky, West Virginia, Virginia, Indiana, and Illinois in proportion to their share of total population in 1976, it would mean the employment of 5,200 additional mineworkers in those five States.

As President John Kennedy said in 1962 and I quote, "Coal slurry pipelines offer possibilities for renewed economic vigor and increased economic strength for the coal industry" and I submit the same thing is true 20 years later.

If costs can be lowered in this fashion, the entire economy will benefit.

Coal is our most abundant resource, and we have nearly one-third of the world's known coal reserves. Everything possible must be done to insure that coal can be used economically to meet our energy needs. Coal is a key to America's self-sufficiency in energy. It is believed to be our best hope to counter our Nation's dependence on foreign oil.

Coal slurry pipelines are a very efficient method of transporting coal. They would increase the incentive for powerplants to switch from this foreign-produced oil to American-produced coal. Furthermore, the pipelines would help unblock the large western coal reserves. These reserves must be tapped as part of the drive to use our most abundant energy resource. We believe our national security is threatened by our dependence on foreign oil.

In addition to providing jobs and increased financial security, the pipelines would be of great help to the export trade. The export potential would help boost our balance of payments substantially. Further, it would enable the United States to supply some of the energy needs of Western Europe in case the Soviet Union uses the new Siberian gas pipeline as a potential political weapon.

If we can substantially increase our coal market, there will be plenty of jobs for the railroads and other methods of transportation. We will also need expanded rail facilities. According to one study, in order to meet our coal-use goals by the year 2000, we will need 1,400 new unit trains and 3,200 conventional new trains. We will also need 500 new barges and 9,400 new coal trucks. And we will need to expand our port facilities to handle large coal-carrying ships. Coal slurry pipelines are vital to this effort.

We believe that the eminent domain authority must be given to the coal slurry pipelines. After almost a decade of experience we must conclude that substantial legal and practical problems presented by reliance on individual State actions will preclude the nation-wide development of this industry. There exists precedents for granting eminent domain. The railroads, the petroleum pipelines, and the electric powerlines, and it must be granted again. This is not the time for regional squabbling.

We think we must act as one Nation. Pipelines have many advantages. They are efficient and a cheap method of transporting coal. Being underground they do not disrupt communities. They produce no dust and no noise. They are clearly in the national interest.

The Building and Construction Trade Department strongly supports this legislation.

That concludes my oral testimony, Mr. Chairman. I'm prepared to respond to any questions you might have.

[The prepared statement of Mr. Georgine follows:]

STATEMENT OF

ROBERT A. GEORGINE, PRESIDENT

BUILDING AND CONSTRUCTION TRADES DEPARTMENT,

AFL-CIO

BEFORE THE

SENATE ENERGY AND

NATURAL RESOURCES COMMITTEE

MAY 10, 1982

The Building and Construction Trades Department represents 4.3 Million construction workers who live and work in communities throughout the United States and Canada. Today, more than 800,000 of these workers are without jobs, and the unemployment rate in the construction industry is more than double the inexcusably high national average. Moreover, these are only the workers who are officially counted as unemployed; that is, those who are actively seeking work. In the most depressed regions of the country, many building trades workers have undoubtedly relinquished the job search, at least temporarily, and are no longer counted among the officially unemployed. The construction industry has been one of the primary victims of the economic downturn.

Of course it is not only the construction industry which is suffering. Today there are more people out of work than at any time since the Great Depression. Such unemployment has enormous social costs, both in terms of the hardships endured by these unemployed workers and their families, and in terms of the enormous waste of productive potential which this unemployment represents. In addition, many economic costs - including the burden placed on the unemployment insurance system by the large number of unemployed workers - are associated with this unpardonable trend. Further, a burden is placed on all levels of government as tax revenues fall when unemployment rises.

The present levels of unemployment have serious implications for the long-term health of the economy. Consider the construction industry. Within the next decade, our country will need to undertake a variety of major construction programs: to provide sufficient housing, to provide for new industrial capacity, to rebuild our aging transportation systems, and so on. Such programs will require large numbers of trained and experienced construction workers.

We have that workforce. Our labor-management apprenticeship programs produce first-rate craftsmen. These programs provide thorough instruction and experience, both on and off the job, in all the practical and theoretical aspects of the work required in a skilled occupation. The programs give workers the versatility to adapt to technological changes that require different methods, materials, equipment and other working conditions. A highly-trained and flexible workforce is required to meet the ever-changing needs of the industry. But if present trends continue, this workforce may not be there when it is needed. Skilled construction workers possess - or can quickly acquire - skills which are needed in many other industries. One result of the present situation may be an erosion of the pool of skilled construction workers which, in turn, will lead to serious shortages once interest rates come down and construction activity increases.

The construction of coal slurry pipelines would help prevent an erosion of the pool of skilled construction workers. On pipeline construction, the greatest number of manhours of work would go to laborers, with the pipefitters and operating engineers next, followed by the Teamsters and other trades. The proposed 1300 mile ESTI Pipeline, now closest to the construction stage after years of struggle, estimates two years of work. They expect to employ nearly 7,000 people, including 3,255 laborers, 2,100 pipefitters, the same number of operating engineers, 840 Teamsters, 654 millwrights, 520 electricians, 340 carpenters, and others. The Coalstream Pipeline, which would run from Appalachia and Illinois to Florida and Georgia, projects 10,000 construction jobs, and 6,000 to maintain the pipeline. These jobs are desperately needed.

It is not only workers in the depressed construction industry who would benefit from pipeline construction. If all of the increased coal use resulting from pipeline transportation to Georgia and Florida were to be produced from mines in Kentucky, West Virginia, Virginia, Indiana and Illinois in proportion to their share of total production in 1976, it would mean the employment of 5,200 additional mineworkers in those five states. Coal slurry pipeline construction would definitely mean more coal production jobs for miners and suppliers to the coal industry. And, of course, coal producers will have more marketing opportunities. In addition, electric utilities will benefit directly from lower transportation costs, and consumers of electricity will benefit from lower electricity charges. The National Energy Research Associates (NERA) reported in a recent study that the Coalstream Pipeline would save consumers $53.1 million by 1990. By the turn of the century, the annual savings to the average Florida consumer would be $58.30.

The pipelines will make a very positive contribution to the economy. As President Kennedy said in 1962, coal slurry pipeline "offer possibilities for renewed economic vigor and hope for increased economic strength for the coal industry. If costs can be lowered in this fashion, the entire economy will benefit."

Coal is our most abundant energy resource, and we have nearly one-third of the world's known coal reserves. Everything possible must be done to ensure that coal can be used economically to meet our energy needs. Coal is a key to America's self-sufficiency in energy. It is our best hope to counter our country's continued dependence on foreign oil. The high cost of transporting coal is presently delaying and preventing many industries and utilities from using domestic coal resources. Ironically, some American utilities have found it cheaper to import foreign coal than to use domestic coal. Coal slurry pipelines are a very efficient method of transporting coal. They would increase the incentive for power plants to switch from foreign-produced oil to American-produced coal. Furthermore, the pipelines would help unblock the large western coal reserves which must be tapped as part of the drive to use our most abundant energy resource. Our national security is threatened by our dependence on foreign oil.

The pipelines will be of great help to the export trade. U.S. coal exports are expected to double by 1990. The export potential would help boost our balance of payments substantially. More importantly, it would enable the U.S. to supply some of the energy needs of Western Europe in case the Soviet Union uses the new Siberian gas pipeline as a political weapon.

If we can substantially increase our coal production we will increase our national security. Coal slurry pipelines are vital to this effort, as are other methods of transportation. The Executive Director of the International Energy Agency in Paris, writing in the 1979-80 issue of Foreign Affairs magazine on "Expanding World Use of Coal," cites a study which lists the efforts needed to reach U.S. coal use goals by the year 2000. They include: a thirteen-fold increase in western coal production; a doubling of eastern underground mining; a combination of nine new slurry pipelines AND expanded rail facilities, involving 1,400 new coal unit trains and 3,200 new conventional trains; 500 new barges and 9,400 new coal trucks; and a major expansion in port facilities to handle large coal carrying ships. If we can increase our coal production there will be plenty of jobs in the future for the railroads.

Coal slurry pipelines can make a valuable contribution to our economic well-being, and we believe that eminent domain authority must be givon to the slurry pipelines. The experience of the coal slurry industry over the past decade conclusively demonstrates that, even with Presidential involvement at the state level, the substantial legal and practical problems presented by reliance on individual state action will preclude the nationwide development of this vital industry. Although the ETSI Pipeline Project acquired its rights-of-way without this legislation, they had to go to court in 65 cases to secure this. This is expensive and time-consuming. There exist precedents for eminent domain: the federal government granted this authority to the railroads in the 1860's and 1870's, to petroleum pipelines during World War II, and eminent domain authority has also been given to interstate gas pipelines and electric power lines. It must be granted again.

This is no time for regional squabbling. We cannot afford parochialism. We must think and act as one nation. Coal slurry pipelines are underground and thus do not disrupt communities. They are noiseless, and they produce no dust. Blizzards and sub-zero weather are surface hazards that can halt surface transport, but leave pipelines unaffected. Coal slurry pipelines are not subject to collisions or derailments. This legislation can provide many jobs. It can improve both our economic situation and our national security. The legislation is clearly in the National interest. We strongly support the bill.

The **Chairman**. Thank you. Mr. Radin?

STATEMENT OF ALEX RADIN, EXECUTIVE DIRECTOR, AMERICAN PUBLIC POWER ASSOCIATION, WASHINGTON, D.C.

Mr. **Radin**. My name is Alex Radin. I'm executive director of the American Public Power Association. I'm appearing here today primarily on behalf of the American Public Power Association, and also for the Consumer Federation of America which I serve as vice chairman and also chairman on the Committee of Energy and Natural Resources.

The Consumer Federation of America consists of about 200 national, State, and local groups representing about 30 million consumers. And the American Public Power Association represents about 1,750 municipal and other local publicly owned utilities throughout the United States.

The interest of both of these organizations in this legislation, stem from the need of competition in the transportation of coal which is a major source of energy for electric utilities. Speaking for our own segment of the industry, about 260 municipal-owned electric utilities burn coal in their powerplants, and in 1981 they produced about 69 billion kilowatt hours through coal-fired generating stations, and this amount of power being produced from coal proportionately and from an absolute sense is expanding steadily.

The Consumer Federation of America is in favor of this legislation because it has always been in favor of comparison shopping at the beginning of a productive process as well as at the point of final purchase.

In speaking for our own association, American Public Power Association, we likewise are firm believers in competition. In fact, as public agencies we are required in most cases to take competitive bids for the products and services that we buy.

We feel the advantage of coal slurry pipelines is that it would save consumers billions of dollars through lower rates for hauling coal.

I'll be followed on the witness stand today by Mrs. Cockrell, representing the Public Service Board of San Antonio. They have a striking example of what happens to the rates for hauling coal when there is no competition. That example is not by any means unique. For example, a municipal utility in the city of Hibbing, Minn., pays about $10.76 per ton for coal and about $23 per ton for rail transportation. Another utility in that same State, Minnesota, pays about $11 per ton for coal and about $23 for freight. So the price of hauling coal is a very substantial part of their ultimate cost of producing electricity and we are exceptionally interested in the means of reducing the cost of producing power and delivering it to consumers through the use of coal slurry pipelines which would provide an important means of competition in the delivery of coal.

I might also point out, the coal slurry pipelines are not as susceptible to inflationary pressures as railroads since they have a larger proportion of their costs in fixed costs than do railroads. Both of our organizations have adopted resolutions favoring the use of coal slurry pipelines. The Consumer Federation of American in the resolutions adopted this year stated: "In recent years the price of energy has been rising faster than the cost of living and has been a principle contributor to inflation."

Our resolution then stated that Federal legislation, the CFA supported Federal legislation which would provide the right of eminent domain to build the coal slurry pipelines while recognizing legitimate States rights and protecting water resources.

Our own association has adopted a similar resolution and we urge this committee and Congress to act as promptly as possible in reporting out and passing legislation providing for the right of eminent domain for coal slurry pipelines.

Thank you.

[The prepared statement of Mr. Radin follows:]

STATEMENT
by
Alex Radin
Vice President, CONSUMER FEDERATION OF AMERICA
and
Executive Director, AMERICAN PUBLIC POWER ASSOCIATION
before the
Senate Energy and Natural Resources Committee
on
S. 1844,
THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

May 10, 1982

My name is Alex Radin. I am Executive Director of the American Public Power Association, and Vice President of the Consumer Federation of America, and Chairman of its Energy and Natural Resources Committee. I am presenting this statement in support of coal slurry pipeline legislation on behalf of both organizations.

The Consumer Federation of America (CFA) is the nation's largest consumer advocacy organization with more than 200 national, state and local groups representing some 30 million consumers. The American Public Power Association (APPA) is the national service organization representing more than 1,750 local publicly owned electric systems throughout the country. Because all of these utilities are consumer owned, APPA has taken an active role in CFA since its inception.

The bill before this committee, S. 1844, "The Coal Distribution and Utilization Act of 1981," would allow coal slurry pipeline operators to obtain rights-of-way across private lands through the use of federal eminent domain powers. Coal slurry is pulverized coal mixed with water or some other liquid so that it may be carried through underground pipes. It is important to consumers and to public power systems that this bill be enacted as soon as possible. In many cases, railroads have blocked access across their lands to coal slurry operators. Such action has the effect of eliminating competition from coal slurry pipelines and makes it possible to keep the price of coal to fuel electric systems artificially high.

Consumers Benefit from Coal Slurry Pipelines

The interests of both CFA and APPA in S. 1844 stem from the desirability of providing competition to railroads and other carriers in the transportation of coal, which is a major and steadily growing source of energy in the production of electricity.

CFA is an advocate of competitive pricing and "comparison shopping" at the beginning of the productive process, as well as at the point of final purchase, and APPA member utilities have a direct interest in keeping their costs as low as possible. CFA and APPA, therefore, support S. 1844 because it would allow coal slurry pipelines to compete with railroads and other carriers in the transportation of coal, and, thus, assist in lowering or stabilizing the cost of coal transportation.

In some instances, the availability of competition in the form of coal slurry pipelines could save consumers billions of dollars. For example, one study has estimated that a coal slurry line from Illinois and West Virginia to coal plants in Georgia and Florida could save consumers $12 billion in transportation costs over a 20-year period.

Other consumer benefits of coal slurry pipelines may include:

** Increased use of a domestic resource, coal, thereby alleviating the country's dependence on foreign oil;

** Increased potential for coal exports, which would benefit the nation's balance of payments;

** Increased jobs for miners and construction workers;

** A coal transportation system which is not as susceptible to inflationary pressures as are railroads.

Environmental advantages to consumers include replacement of unit trains with quiet, efficient and safe underground pipes. If the slurry lines use the federal power of eminent domain, the requirements of the National Environmental Policy Act and the Federal Water Pollution Control Act must be met. Furthermore, this legislation does not ask for tax dollars to subsidize or develop coal slurry lines.

Consumer advantages of coal slurry pipelines are closely tied in with the advantages such a transportation network would afford both investor owned and public power systems. Consider the effects on consumers of the following. Most of the coal which would be delivered by coal slurry pipeline would be used by utilities to generate electricity. Currently, electric utilities use about 80 percent of coal produced in this country. On the average, one half of the delivered price of coal to utilities is due to transportation costs.

About 85 percent of all coal in this country is transported by rail. Most of those utilities using railroads for coal transportation are "captive" to that mode of transportation. No alternative transportation is available. In addition, since most coal mines are served by only one railroad, there is little competition among the railroad companies. This lack of competition gives railroads the potential to charge excessive rates, thus, greatly raising the prices paid by consumers for energy. Because public power systems are nonprofit and operate on a cost-of-service principle, excessive rail transportation costs must be passed on to the consumer.

Today, you will hear from a representative of one of APPA's member systems, San Antonio City Public Service Board. Since 1973, the cost of coal transportation for that utility has increased 300 percent, largely because that utility has no feasible alternative to rail transportation for its delivery of coal.

There are other examples of public power systems which have to pay considerably more for transporting coal by rail than they pay for coal itself. The municipal electric utility in Hibbing, Minnesota, pays $10.76 per ton for coal, plus $23.07 per ton for rail transportation, making the total price per ton $33.83. Another example in Minnesota is the Virginia Department of Public Utilities which pays $11.09 per ton for coal plus $23.36 for freight. Not only is the price of coal tripled because of these freight transportation costs, but in addition, utilities lose control over the ultimate cost of using coal if they are captive shippers of a railroad.

Competition provided by coal slurry lines could help reduce these energy transportation costs. Coal slurry lines will not serve all areas of the country. However, even areas not directly served by coal slurry lines will benefit from the threat of competition.

The high cost of energy is of particular concern to the Consumer Federation of America. In an introduction to its Energy and Natural Resources Resolutions approved January 16, 1982, CFA noted: "In recent years, the price of energy has been rising faster than the cost of living, and has been a principal contributor to inflation." CFA's Energy and Natural Resources resolution supported "federal legislation which would provide the right of eminent domain to builders of coal slurry pipelines, while recognizing legitimate states' rights in protecting their water resources."

The American Public Power Association also has adopted a resolution supporting coal slurry legislation:

> APPA endorses the construction of coal slurry pipelines to share with railroads the burden of transporting vastly increased coal supplies, and urges the Congress to enact legislation authorizing slurry pipelines to exercise the power of eminent domain, but providing also that no pipeline should be built without consideration of the balance between the energy needs of the area to be served and the water needs of the producing area. (May, 1978.)

The Consumer Federation of America and the American Public Power Association applaud this committee for holding hearings on S. 1844. It is time to act. Three Congresses have considered coal slurry legislation, but no bill has been enacted. We urge this committee to report a bill as quickly as possible so that coal slurry legislation can be enacted during the 97th Congress.

Passage of S. 1844 is particularly urgent because of the effect on rail transportation costs of the Staggers Rail Act enacted in 1980. Unfortunately, this law allows railroads to increase their rates on captive traffic and to decrease their tariffs on competitive traffic. Railroads are using the Act to effectuate ever escalating rate increases. These rates will continue to increase until the railroads' dominance in the coal haulage market is met by an economically competitive alternative such as coal slurry pipelines.

Necessity of Federal Legislation

The coal slurry bill before this committee, S. 1844, provides that before a coal slurry operator can exercise the right of federal eminent domain, the operator must apply to the Secretary of Energy who has to certify that the coal slurry line would be in the national interest. If the coal slurry line is determined to be in the national interest, the slurry operator can exercise the power of eminent domain in the U.S. District Court for the district in which the lands are located or in the appropriate state court. Procedures for eminent domain established under existing law provide for the deposit of money equal to the fair market value of the land with the court.

Despite the documented advantages, the Administration has opposed federal eminent domain legislation for coal slurry lines. Its reasoning is based on the premise that use of eminent domain should be left to the states. It is interesting to note that before the President decided to oppose the bill, the Secretaries of the Departments of

Energy, Transportation and Commerce, and the Council on Environmental Quality supported federal eminent domain for coal slurry lines as both appropriate and necessary.

In his November 16, 1981, memorandum to Interior Secretary Watt, the President noted that "Coal slurry pipelines may be an efficient and cost-justified way to move coal and they should be allowed to compete on their own merits as contributors to improving America's energy situation." The President also said, "It is clearly contrary to the national interest for private parties such as railroads, or for individual states, to thwart projects beneficial to the nation simply for their own parochial purposes."

Unfortunately, without the power of federal eminent domain, it is clear that the national interest will be thwarted because few slurry lines can be built. A few states do provide eminent domain for coal pipelines, but a number of state laws deny application where the pipeline crosses the state without picking up or dropping off coal within the state. In addition, a state-by-state approach would mean long delays because of the inconsistencies between state laws, and because of the length of time it would take state legislatures to act.

In reality, most slurry lines cannot be built without crossing railroad property -- property originally given to the railroads through land grants in the 1880's -- and railroads have consistently denied access to slurry operators.

Gas and oil pipelines, electric transmission lines, and railroads currently have the power of eminent domain on the theory that such power is in the public interest. Coal slurry pipelines are as much in the public interest as gas and oil pipelines, electric transmission lines, or railroads, and consequently should not be excluded from using the power of eminent domain.

Currently, there are eight coal pipelines in advanced planning stages ranging in size from one 200 miles long from Utah to Nevada, which could deliver 10 million tons of coal a year, to one 1,500 miles long from Appalachia to Georgia, which could deliver up to 55 million tons of coal a year. If all these proposed pipelines were completed by the end of the 1980's, they could deliver approximately 150 to 170 million tons of coal a year.

Savings Projected from Use of Coal Slurry Pipelines

Since coal slurry legislation was first introduced 20 years ago, there have been numerous studies comparing the cost of coal slurry pipelines with other methods of transporting coal. For example, a study conducted in May, 1981, by A.T. Kearney, Incorporated, for the Coalstream Pipeline Company, a subsidiary of Continental Resources Company, compared rail and pipeline rates for transporting coal from Illinois and West Virginia to 16 generating plants in Georgia and Florida for the years 1988 (the proposed first year of operation of the pipeline involved) through 2007. Based on an inflation rate of 9.8 percent, the study concluded that the pipeline delivering 54 million tons of coal a year over a 20-year period would save $12 billion in transportation costs in 1981 dollars ($54 billion in inflated dollars).

A February, 1981, study by National Economic Research Associates on the same coal slurry pipeline from Illinois and West Virginia to Georgia and Florida estimated a savings in our national oil import bill of $678 million in 1995 and $723 million in 2000 by virtue of the substitution of coal for imported oil. In addition, increased coal production that would be facilitated because of the pipeline would provide employment for 5,200 additional mine workers in Kentucky, West Virginia, Indiana, and Illinois.

There are not only savings because of competition, but also savings because the cost of building and operating pipelines is less than railroad transportation of coal. A staff study by the Joint Economic Committee in 1980 stated that the cost of building and operating a pipeline is about half that of building and operating rail lines.

About 70 percent of the coal slurry pipelines' costs are related to capital investments which are fixed. Only the remaining 30 percent related to labor, electric power, and supplies are variable and, thus, subject to inflation. In contrast, only 30 percent of railroads' costs are fixed; the rest are variable. For this reason, operating costs of slurry lines are relatively stable over long periods.

Coal Slurry Pipelines Are Efficient

The efficiency and economy of a pipeline is site specific depending on the type of terrain that has to be crossed, the length of the line and the amount of coal transported. The National Energy Transportation Study, published in 1980 jointly by the Department of Energy and the Department of Transportation, said, "Under appropriate conditions, coal slurry pipelines can be the economical and environmentally preferable means of transporting coal. Coal slurry pipelines may be an economic form of transportation where large volumes of coal need to be transported over a long distance from one mine area to a single user and where a direct rail or barge route does not already exist."

A more recent study made this year by Ebasco Services, Incorporated, reports that coal pipelines are more economical than coal transportation by railroad, rail/barge, and transmitting electrical energy by power lines. The study, published in Ebasco's Energy Business magazine, reviews the comparative costs for moving blocks of energy in units of 1,600, 3,200, 6,400, and 9,000 MW increments over distances of 500, 900, and 1,500 miles. The study concluded:

** Coal pipelines provide the lowest cost mode of energy transportation analyzed, followed by rail/barge.

** Coal pipelines and transmission lines are more inflation-proof than rail or rail/barge modes of transportation because of the low overall operating and maintenance costs associated with coal pipelines and power transmission lines.

- ** If coal pipelines are to be viable, the right of eminent domain must be available to the user.
- ** Consideration should be given to advanced pipeline concepts, including coal/oil slurry transport and methacoal slurry transport.

State Water Rights Not Affected

Some serious concerns have been raised about the use of scarce western water for coal slurry pipelines. I believe the bill before this committee adequately protects water rights. Historically, water allocation is primarily a matter of state law. The bill before this committee does not change existing law governing water rights. It specifically provides three safeguards for water rights. First, the bill provides that the power of eminent domain does not apply to water rights. Secondly, the bill stipulates that "nothing in this act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use or diversion of water." Thirdly, the bill prohibits the use of the Commerce Clause power to preempt state water law.

Concern also has been expressed about the amount of water used for coal slurry pipelines. At the point of origin, coal slurry pipelines use significantly less water than mine-mouth electric generating plants or synthetic fuel plants built in the same area. Coal slurry lines use about half the water needed for coal gasification facilities. Also, coal slurry lines can use water which is not suitable for agricultural or municipal use, or is too contaminated or saline for some purposes.

A January, 1980, report by the General Accounting Office entitled "Water Supply Should Not Be An Obstacle To Meeting Energy Development Goals" found that "...local water consumption would be reduced substantially if coal slurry lines or alternate modes of transportation replaced local electricity generation....If some of the opposition could be satisfied that slurry pipeline problems are minimal, there would be substantial interest in developing additional lines and a possibility of reducing water consumption in water-short areas."

In addition to the fact that coal slurry lines use less water than other energy-related facilities built in the same area of origin, there are current studies underway with the objective of reducing water use further by using other liquids such as liquid carbon dioxide, oil, methanol and waste water.

As to the quality of discharged water, the Federal Water Pollution Control Act prohibits the discharge of any water which does not meet minimum quality standards. Before water can be discharged, permits must be obtained and permit holders must prove that all applicable standards will be met.

Environmental Issues

Some concern also has been expressed about the disruption to the land by building a coal slurry pipeline. I do not believe this is a significant problem. Pipelines are buried deep in the ground, below the frost line. Farmers can work the land above them. Certainly, coal slurry pipelines are less disruptive than unit trains rumbling through towns several hours a day, causing noise, air pollution and other environmental effects. Furthermore, a coal slurry pipeline that either uses the eminent domain authority in the pending legislation or one that crosses federal land will be subject to the requirements of the National Environmental Policy Act which includes among other requirements the preparation of an environmental impact statement.

As to the environmental effect of leaks or ruptures in the coal slurry pipeline, there is currently advanced, state of the art technology which provides careful attention to maintenance, allows quick detection of a rupture, and automatic cut-off valves. In addition, the coal slurry is less explosive, and thus offers less of an environmental threat than pipelines carrying oil, gas or chemicals.

Increased Coal Use

Another issue of concern to consumers is whether there is a sufficient transportation market for both railroads and slurry lines. It is undisputed that domestic coal use is increasing and will continue to increase. Coal production is estimated to reach 1.4 billion tons by 1990. In contrast, 830 million tons of coal were produced in 1980. In addition to increased domestic use of coal, there is a growing foreign market for American coal. Coal exports rose about 20 percent in 1980 from 64.8 million tons in 1979 to about 73 million tons in 1980. The National Coal Association has estimated that exports could increase to 118 million tons by 1990. Clearly, these figures indicate there is sufficient transportation market for both railroads and slurry pipelines.

Increases in foreign use of U.S. coal depend upon its being priced competitively with other energy sources. Transportation costs amount to a significant portion of the delivered price of coal. If these costs can be lowered because of coal slurry pipeline transportation, coal will obviously be more attractive to foreign markets. "The World Coal Study," published in 1980 by the Massachusetts Institute of Technology, said the United States has the greatest potential for meeting the world's increased coal needs because of large coal resources and high-level technology. Addressing ways to lower coal transportation costs, the report noted: "Although the use of coarse slurries merely as a technique for rapid loading and discharging at the ports has been proposed, a more significant development would be the loading and movement of slurries transported by pipeline from inland mines to the ports."

Conclusion

It is important to consumers that coal slurry pipeline legislation be enacted as quickly as possible. The cost of energy has significantly contributed to inflation, and every effort must be made to reduce or stabilize energy costs. Inasmuch as the transportation of coal is a major component in the ultimate cost of electricity, any steps which can be taken to reduce coal transportation costs would be highly desirable.

Benefits of coal slurry lines to consumers include: (1) Reduced cost of transporting coal; (2) facilitating increased use of domestic coal to replace expensive foreign fuel oil; (3) increased potential for export of coal which would benefit the nation's balance of payments; (4) increased competition in the transportation industry; (5) use of less water than synthetic fuels; and (6) substitution of quiet, efficient and safe underground pipes for some additional unit trains.

With proper legislation, such as S. 1844, coal slurry pipelines could help provide an adequate balance among energy, environment and transportation requirements of the country. The Consumer Federation of America and the American Public Power Association urge this committee to act promptly in reporting coal slurry legislation.

The **Chairman**. Thank you, Mrs. Cockrell.

STATEMENT OF LILA COCKRELL, TRUSTEE, CITY PUBLIC SERVICE BOARD, SAN ANTONIO, TEX.

Ms. Cockrell. Thank you.

I come to you representing a city of 783,000 persons who own their own electric utility, the city public service board. And in my written statement to you I have summarized in some detail the dealings that we have had on trying to supply our utility users with the least expensive fuel which we believe is coal.

The tremendous problem that we have had with the coal freight rate, however, has impaired our ability to keep freight with our consumers for reasons beyond our control.

I might say back in 1973 when our utility made a decision to convert to coal and build two coal-fired generating plants we were quoted a price of $7.90 a ton by the Burlington Northern railroad as a price for hauling the coal from Gillette, Wyo., the place of our supplier, to San Antonio. The coal price at that time was quoted at about $7.50 a ton and so it seemed as if it would be a good package for us to put together to bring coal into San Antonio and generate electricity.

To make a long and very sad story short, the bottom line is that today the price of that coal transportation has escalated from the initial $7.90 a ton quotation that we received to today's price of $26.10 a ton. Now what that means in dollars to the people of our city is it means $75 million a year, just for coal transportation rates. The price of coal has remained relatively stable. We have no complaints about our basic fuel. We do have very serious complaints about what has happened to us in our role as a captive shipper. And it certainly does not any further bring joy to our hearts when we read in Business Week magazine of March 8, which is headed from one of its articles, "Burlington Northern's Cash Cow." And down in the article it says:

> With the Burlington Northern becoming a massive cash machine and with increasing unused borrowing power of the holding company, Burlington Northern by year end could have a $1 billion head of steam built up for a major buy.

In other words, because of the profits of this company, they are moving into seeing what other things they can buy to use up these enormous cash flow assets they have.

I have to tell you that we were somewhat astounded to learn just recently that the railroad which has been our supplier, Burlington Northern, and which in all of these years has been one of the leading national entities fighting the coal slurry pipeline bills that have been before the Congress, apparently has had a change of heart. And in articles that appeared from Montana papers, the Billings, Mont., Gazette; the Montana Independent Record; Great Falls, Mont., Tribune; and the Livingston, Mont., Enterprise received the benefit of some editorial comment as to whether or not their recent activity in announcing interest in a coal slurry pipeline might in fact be a turncoat turnaround. I find this of particular interest as one of Burlington Northern's customers. It comes as something of a surprise when a Burlington Northern official announces that the railroad might very well be changing its tune about slurry.

The BN which owns large eastern Montana coal assets in addition to other assets, apparently would like to get some of it moving to out-of-State markets and is beginning to see cost savings in sending it in a slurry pipeline. Even the railroad, in other words, can't afford to ship coal on the railroad.

Now I submit to you that those of us who are sitting down in San Antonio, Tex., and who still, as of this moment, are captive shippers of this railroad, also are questioning whether we can afford to ship coal on the railroads.

Now we feel in the American free enterprise system, competition is as American as Mother's Day and apple pie, and we are depending upon this distinguished body to review the problems that have been occurring to consumers of America and certainly we speak only for our own consumers, in being in a situation where there has been no competition and where the consumers are in fact the victims as captive shippers.

Thank you.

[The prepared statement of Ms. Cockrell follows:]

Statement of Lila Cockrell
Presented to the Senate Committee
on Energy and Natural Resources
Hearings on Senate Bill 1844
Coal Distribution and Utilization Act of 1981
May 10, 1982 10:00 a.m.

Beginning in the winter of 1972-73 the City Public Service Board, the gas and electric utility owned by the City of San Antonio, experienced serious curtailments of its natural gas supplies. Later in 1973 the utility learned from its gas supplier, Coastal States, that the supplier no longer had sufficient gas reserves to supply the demand, and could not obtain the necessary reserves at the contract price.

A conversion program was initiated to make the electric generating units, which were solely dependent on natural gas as a fuel except for short duration firing of light fuel oil in emergencies, capable of sustained firing of residual fuel oil. This interim measure, which also provided increased fuel oil storage and pipeline connections, provided an alternative fuel capability for electric generation.

Concurrently a commitment was made to further diversify to coal and nuclear. The decision was made to build two 418 megawatt coal fired electric generating units and to participate in the South Texas Nuclear Project. It should be noted that the switch to coal and nuclear was being encouraged by the Federal Government and was clearly in line with the need and national energy policy to reduce consumption of natural gas and oil.

In June of 1973 requests for proposals to supply coal for the two coal units were sent to those companies expressing an interest. At the same time requests were sent to railroads which served the areas where coal to supply the units could be produced.

In July of 1973 the Burlington Northern Railroad submitted a letter proposal offering a rate of $7.90 per ton for shipping coal from Gillette, Wyoming to San Antonio, Texas. Proposals were also received for coal supplies. After evaluating proposals received, including the cost of transportation, it was determined that the best proposal was received from a subsidiary of Sun Oil Company, Sunedco Coal Company. A confirmation of the freight rate proposal including concurrence of the Southern Pacific Railroad was requested and received.

At the same time the confirmation tariff at the $7.90 per ton rate was received a letter was received from Burlington Northern withdrawing the proposed rate. A new rate proposal was requested and a rate of $11.09 per ton was proposed. Justification for the increase was requested and the only reason given was increased diesel fuel costs which would only account for a few cents of the $3.19 per ton increase proposed. After many futile attempts to obtain justification for the increase or to negotiate an acceptable rate, the City Public Service Board filed suit with the Interstate Commerce Commission in May of 1975 requesting the Commission to prescribe a rate for its coal movement. In October, 1976, the ICC issued a decision which has become known as San Antonio I in which it prescribed a maximum reasonable rate of $10.93 per ton.

Coal started moving to San Antonio in October, 1976 at the prescribed rate. The rate was increased through general ex parte rate increases and in December, 1977 the railroads filed with the ICC asking to reopen the San Antonio freight case. After numerous legal maneuvers, the ICC on October 25, 1978 issued an order setting the CPS freight rate at $16.12 per ton effective December 1, 1978. This decision and the subsequent rate level has become known as San Antonio II. Appeals were filed with the ICC and also in the U.S. Court of Appeals for the District of Columbia Circuit.

Close on the heels of the drastic increase another general increase was approved by the ICC escalating the rate to $17.01 per ton effective December 15, 1978. There was another general increase to cover the cost of diesel fuel in 1979 and also on June 1, 1979 the ICC issued an order, at the request of the railroads, to raise the rate to $18.18 per ton. This order allowed the railroads to charge seven percent (7%) above fully allocated cost to offset competitive commodity movements which move at lower levels. This decision which is known as San Antonio III became effective on July 4, 1979.

There ensued a complex and confusing course of litigation before the ICC and several federal courts. The ICC reinstated the San Antonio III level rate in May 1981 and with all applicable adjustments it amounted to $23.72 per ton. The rate continued to escalate via the ICC Rail Cost Recovery Index established by the Staggers Rail Act and today San Antonio is paying $26.16 per ton to ship coal from Gillette, Wyoming to San Antonio.

During this period that the freight rate was rapidly escalating the cost of coal at the mine actually declined even when the thirty five cent (35¢) per ton Abandoned Mine Reclamation Tax and the two percent (25) Black Lung Tax, recently doubled to four percent (4%), are included. After declining in the initial years, the mine cost for the first quarter of 1982 is slightly higher than it was for the first shipment but the average for the year is expected to be between $7.85 and $7.90 per ton with the federal taxes included in the total cost compared to the initial price of $7.50 per ton in 1976 without the federal taxes. Had there been competition for transportation of coal, San Antonio's fuel prices could have remained stable as was initially anticipated, instead of escalating to such exorbitant levels as they have.

The City Public Service Board has always supported legislation for coal slurry pipelines because it offers needed competition to the railroads and is a more efficient method for transporting coal over long distances. Since slurry pipelines are capital intensive, they offer the possibility of a more stable rate level in future years. More stable cost-based coal transportation rates are necessary to encourage electrical utilities to commit to conversion from oil and gas to coal. Without competition and the hope it brings for more stable freight rates, San Antonio will not commit to the use of vast reserves of western coal for additional generating units to meet future demand.

Regulatory impediments to contracting have been removed and the railroads are now free to contract with shippers. Contracting for coal transportation services would work well if the basic underlying factor of competition existed, however, the railroads continue to have a monopoly on the movement of coal, especially coal originated in western regions such as the Powder River Basin. The railroads have argued in the past that impediments which were removed by the Staggers Act were preventing the railroads from being viable competition to slurry pipelines. The Staggers Act presumes that competition will ultimately determine reasonable freight rates and the time for passage of the Coal Distribution and Utilization Act is now. Your support and affirmative vote on Senate Bill 1844 is requested.

Respectfully submitted,

Lila M. Cockrell
Trustee
City Public Service Board
of San Antonio, Texas

The CHAIRMAN. Thank you.

I'll be very brief with my questions, although there are a whole host of questions that are brought to mind by the backgrounds and the expertise in the organizations represented by these witnesses.

I do note that States of Wyoming, Oklahoma, Colorado, and Texas all have statutes with respect to eminent domain. That is a land grant from Gillette, Wyo., to your city. If that is indeed a fact, is there a bottleneck on that route? Have you explored the possibility of a coal slurry pipeline from Gillette, Wyo., to your city using the States that already have such statutes on the books?

Ms. COCKRELL. In terms of the coal slurry pipeline, there is one company that is now at the point where it is moving forward. It still has had some problems in completely getting its act together. And I think from the technical point, I think the speakers who are in the following panel will be speaking to technical issues on the difficulties of putting the slurry pipelines together.

The CHAIRMAN. I notice on the map I have, and I don't know any more about it than just that, Texas Eastern has such a routing that would use a land route through those States, and I'm curious to know if indeed they're having trouble with this legislation, if it addresses those problems or if there are independent problems which eminent domain is not the problem.

Mr. Samples, again referring to the State statutes, and there are 12 States that have such statutes, where are the bottlenecks? Why do we need Federal legislation instead of State legislation?

Mr. SAMPLES. I think in the written statement for the record I make some reference to those situations. While I haven't examined each individual State's law with respect to eminent domain, the staff has indicated to me that these are not all compatible one with the other, and there are complexities of trying to mount them altogether in a satisfactory fashion or in a way to accomplish what might be several billion dollars of effort. And it just seems for enterprises of this magnitude and the importance that it can have to our energy costs in this country, that we should address the problems of those kinds of enterprises in a more orderly and reasonable fashion.

The CHAIRMAN. We're trying to do that, but in doing so we're trying to identify what the problems are.

Mr. SAMPLES. I will ask the staff of NCA to address those differences for your record.

The CHAIRMAN. You're talking about the staff of NCA?

Mr. SAMPLES. That is correct.

The CHAIRMAN. Mr. Mundy, it is indicated in the statement of Mr. Georgine which you have given to us, the tremendous amount of additional electrical generation that is expected to come from coal as well as the tremendous increase in total coal activities. I know what your organization has said and I know what the American Public Power Association has said with respect to some of the environmental consequences. You have addressed here the environmental consequences or the environmental balances between coal shipment versus rail, or railroad shipment versus coal slurry pipeline.

Mr. Radin, you wear two hats today. I understand you're not directly representing in all ways here, but one of the major problems we will confront, whether it be coal shipment, I mean railroad shipment or pipeline shipment, is the combustion of that quantity of coal identified in Mr. Georgine's statement. The American Public Power Association I think is prepared to accept the burdens that are imposed and has addressed those questions.

I am concerned whether the Consumer Federation of America, in looking at this legislation and I think I understood you to say they have endorsed this legislation, have also looked at those other environmental effects as to grain questions and the other questions that are associated with combustion of coal, and have made a determination in their minds as the Consumer Federation of America, with respect to the impact that might come about by the increased combustion of coal in the quantities identified by Mr. Georgine and others.

Mr. Radin, could you respond through that other channel, that other hat you're wearing?

Mr. **Radin**. Yes; the Consumer Federation of America has a rather comprehensive statement of resolutions on the issues that you have mentioned. When the question of this legislation came before the consumer assembly or the annual meeting of the Consumer Federation of America earlier this year, as chairman of the committee that presented that resolution, I brought that to the floor and there were some questions raised at that time about the water rights issue.

However, there was a vote taken on the floor at the Consumer Federation of America annual meeting. The majority did feel that this legislation provided adequate protection for water rights. If stronger language is needed, I think the Consumer Federation would be amenable to such language, but as far as the question of environmental effects of burning coal, that has been addressed by the Consumer Federation of America which has taken a rather strong position on the need for legislation to deal with that problem. But that is before the Congress right now in the authorization of the Clean Air Act.

The **Chairman**. I understand that, but I don't understand Congress can by legislation affect physical effects. We haven't been able to repeal the laws of physics and certain others, although on occasion we've attempted to.

Mr. **Radin**. We are certainly concerned about such questions as acid rain and speaking now with my hat on with the American Public Power Association, the position we have taken is that the studies on the question of acid rain should be accelerated instead of having a stretch-out over a period of 10 years, they should be accelerated and completed in no longer than 5 years.

We do have some questions in our mind as to the precise problem with acid rain. There is no unanimity of feeling by any means as to the extent to which powerplants themselves are causes of acid rain. There is some evidence to that effect, but as I say there are differences of opinion and that's why we have urged that these studies that are underway be completed as expeditiously as possible, and form the basis for legislation that might be needed.

The **Chairman**. I don't question the need to have the information. I think we need to have it and we need to have it as soon as we can reasonably develop it, and it needs to be accurate. I would assume that every member of the panel must assume that if we pass this legislation we accelerate the use of coal. It's not an idle question; is it?

Mr. **Radin**. Mr. Chairman, I think that's going to happen in any event.

The **Chairman**. You think this legislation will not affect total consumption of coal?

Mr. **Radin**. It might to some extent but I think there will be acceleration in the use of coal in any event.

The **Chairman**. Let me separate for just a moment whether this will affect the level of consumption of coal over the next 10 or 20 or 30 years.

Mr. **Radin**. I would think so, yes.

The **Chairman**. You would think if this legislation passed there would be more coal used, is that true, Mr. Samples? I noticed you shaking your head.

I don't know whether it was in disagreement with the question or with the response.

Mr. **Samples**. I think the coal used may very well be more competitively priced, but coal requirements, many forecasts have been made and we've seldom met the forecast that has been made, and I cite some numbers, like 1.25 billion tons annually by 1990. I don't necessarily take the view that because of the pipelines more coal will be used. I think it may very well and will be more competitively priced.

The **Chairman**. If it is more competitively priced, I assume more people will buy it.

Mr. **Samples**. I think there are certain physical limitations to the acceleration of coal use.

The **Chairman**. I've talked to a number of coal producers who have urged me very strongly that this should be passed because that means they will produce more. They'll have more people out there in the coalfields working. They'll have more people down in the coal mines working. There will be more coal produced and shipped and more of it used. And more exported, perhaps.

Mr. **Samples**. We would hope all those things would happen from our standpoint.

The **Chairman**. I understand what you're saying, but I'd like to have it rather clearly on the record whether or not we're assuming that this merely affects the economics of the consumption of coal or whether that economics of the consumption of coal also affects the level of use. That's a quite different question.

Mr. **Mundy**. Do you want me to respond to the entire thing?

I assume, or the building and construction trade department assumes the construction of coal slurry pipelines would encourage the use of coal, but I might point out, Mr. Chairman, that this body and others have tried to establish for a long time that that is a matter of national policy. That coal is something that we have, an abundant resource in the United States. Our resources of petroleum and natural gas are more finite. All of them being finite, of course, but it has been a policy of this country to encourage the use of that domestic fuel supply and we think this is an excellent way to transport it.

I might submit to you, and I don't intend to be frivolous, but you're not getting the coal on a unit train that you do on a pipeline. It doesn't substitute for a scrubber or whatever technological means you use to clean up the pollution as a result of burning coal or burning petroleum or certainly to a lesser extent, natural gas. We believe that the productive potential of this Nation is best arrived at by the development and distribution of the least expensive energy system that we can develop, and we think this is one of them. That in conjunction with nuclear power which is another one. And incidentally, we run into some resistance in that area too.

Ms. **Cockrell.** It would be my view that certainly having competition in transportation for coal might indeed serve to increase the use of coal. The reason I state that is, in our particular area, the experiences of San Antonio and what we feel to be a very sad story of being victimized on our coal transportation freight rates, is well known all through our area because we haven't taken it in silence. And it would be my view that there would be others who would be willing and would consider converting to coal were there to be an economical solution to the problem we face.

The **Chairman.** I didn't ask the question frivolously, either, and I appreciate your comment because I think it's a serious question. And the increased consumption of coal that we're talking about does pose those kinds of questions. But I was trying to get into balance whether or not the members of this panel assume that this would affect the total levels of use of coal, and I assume, aside from perhaps Mr. Samples who expressed a slightly modified position, the balance of the panel assumes the construction of slurry pipelines would increase consumption of coal.

Mr. **Bagge.** I'd like to say I vote with the Chairman and I share his point of view.

Mr. **Samples.** Mr. Chairman, I addressed the issue in a little broader context. I think certainly that to reduce the cost of delivery would tend to increase the use of the product. I think that the name of your committee implies that you have broader responsibilities and concerns with respect to energy, and it was in that light that I was addressing my remarks. I think there are other constraints to be dealt with if coal is truly to continue to grow to the potential that we would like to see it go to.

The **Chairman.** I have a meeting to which I'm already late and I must go. I will turn the gavel over to Senator Nickles and ask that he, when completing the questioning of this panel, recess the hearing until the hour of 2 o'clock. And with that, I'll recognize Senator Johnston.

Senator **Johnston.** I'd like to commend the panel. This is really excellently done. I'd also like to commend to my colleagues the study of captive coal shipments by rail which was an attachment to Mr. Sample's testimony which I think is a very powerful piece done by the National Coal Association. It's very well done and it gives the large picture about which Mrs. Cockrell gave the anecdote. But it gives an across-the-board picture of captive coal shippers.

Mrs. Cockrell, with respect to the city of San Antonio, you say that the price of hauling that coal went up from $7.90 a ton to $26.10 a ton?

Ms. COCKRELL. Yes, and I don't believe that is even quite the latest figure. Our attorney is telling us that there has been another increase since then.

Senator JOHNSTON. That's over a period of how long?

Ms. COCKRELL. The initial quote was given to us in 1973. By the time we got to the decision on going ahead with the coal plant, Burlington immediately withdrew that quotation and submitted another one for over $11 a ton, and I might say it's been very typical of our ensuing relationship.

Senator JOHNSTON. You've gone up almost four times in the cost of hauling that coal. Do you know what the increase in the cost of hauling say grain or other commodities to the San Antonio area has been? Has it been 400 percent?

Ms. COCKRELL. To the best of my knowledge, no. I can get you those figures.

Senator JOHNSTON. So in this period of less than a decade, coal has been particularly singled out after you became dependent on one sole source of transportation?

Ms. COCKRELL. Yes sir. We made the decision to switch to coal and to build those two coal-fired generating plants. And I might say that not only did we have to go into a higher capital cost because the cost of the coal plant at that time was 2½ times what the cost of a natural gas or oil plant would have been, so we had to make the higher capital commitment and of course we are still paying off those bonds to build those coal plants. In addition to that we also purchased over 800 coal cars to haul that coal, so we invested in the plant and we invested in the cars. And Burlington Northern and the other railroads furnished the line and they furnish the engine and the personnel, but we maintain those coal cars.

We had to build a special facility to take care of the coal cars. And in spite of that, our rates have gone up as they have.

Senator NICKLES [presiding]. I just have a couple of brief comments and I appreciate the panel's indulgence with us and also the balance of our participants today.

A couple of questions, I think that this panel or possibly our future panels need to address, that needs to be addressed in greater detail, and I'll open it to whoever cares to respond, is the eminent domain question. I haven't heard enough. We've heard a lot on the need for more competition. I certainly concur with that. I think many others would. I think the States' rights issue and the eminent domain issue needs to be addressed.

Mr. Bagge, or Mr. Samples, can you give us some examples of the problems we've had in States' rights, of acquiring the State eminent domain?

Mr. BAGGE. First of all, let's take in the coal slurry pipeline situation which is one of the viable proposals here. Now let me say first of all it isn't the coal producers who are building these slurry pipelines. It is other companies that will be involved exclusively in transportation in other energy matters, but in the coalstream situation, for example, eminent domain exists in West Virginia and in Florida, but not in Georgia or Tennessee and other intervening States, so the problem, even if you have some States where eminent domain authority exists, the problem is the intervening

States. And as we look at projects here in the Midwest and in the East, quite unlike the ETSI experience where they were dealing with railroads who were blocking the construction of the ETSI pipeline, they were land grant railroads and in litigating each of the cases in each of the States, the courts in each of the States held that Congress and the Federal Government had granted the land grant railroads exclusive of the land grants that flowed along the side of the right of way was an easement. Now that doesn't pertain in the East and Midwest so they were particularly fortunate in that the ETSI experience is a precedent for building other slurry pipeline proposals throughout the rest of the country. It simply doesn't hold, because the railroads acquire the land on fee unlike an easement, and therefore those same court cases wouldn't apply.

Those are some of the problems that I perceive that are blocking us from getting this thing going.

Senator NICKLES. But to move in a little further question, we've heard this morning, possibly with future panels this afternoon who will be representatives of the railroad industry, but we've heard from two or three individuals that mentioned the railroads would try to block by not granting passage. Could you comment on that? Has that been the case? Has the railroads said no you can't. We will not allow?

Mr. BAGGE. Absolutely. That's the heart of our problem.

Senator NICKLES. In looking at the States, and as mentioned by Senator McClure, the State which we have a State bridge between Wyoming, Texas and Oklahoma through the ETSI line and also the Colorado and Texas Eastern line, would you still have that problem, or would the States' eminent domain laws basically make those very viable for the coal slurry?

Mr. BAGGE. One of the problems was where they exist they are not uniform in their application. As Mr. Samples said, it's difficult to blend them even where they exist to make it a viable proposal.

Senator NICKLES. I'll ask this question to the chairman of ETSI. But basically you're saying even though the States and all the land States in the pipeline that it would care to go through, even if they granted eminent domain in some cases, you feel that wouldn't be enough?

Mr. BAGGE. That's what we're saying.

Senator NICKLES. Primarily because the eminent domain statutes would not be close to being the same? They might have a restriction?

Mr. BAGGE. Exactly.

Senator NICKLES. There would have to be a product used in the State——

Mr. BAGGE. There would have to be a degree of uniformity in the application of a concept of eminent domain which simply doesn't exist. Even in the few States that have it.

Senator NICKLES. A couple of other questions on the competition, Mr. Samples, what is the average price of coal? I think we heard figures of $10 and $11. What is coal selling for?

Mr. SAMPLES. It varies across the country. In Wyoming it's in the $17 range. Coal in the eastern part of the United States sells for as high as maybe $40 per ton, and I'm talking of steam coal versus the higher priced metallurgical coal.

Senator **Nickles**. You're not talking about transportation you're just talking about coal.

Mr. **Samples**. Your question was what was coal selling for.

Senator **Nickles**. What do you sell coal for and then I'm going to ask what is the transportation cost.

Mr. **Samples**. All right, so that's the range in price depending upon where the coal is located and the quality of coal itself.

Senator **Nickles**. You have some western coal that may be selling for what?

Mr. **Samples**. $8. And in some eastern coal, $40, and maybe some are more.

Senator **Nickles**. Transportationwise and I might ask the chairman of the Florida utility, what do you pay for coal?

Mr. **McDonald**. We don't burn coal at this time, Senator. But we are under some pressure from both the State and Federal level to convert from oil which is 50 percent of our fuel at the present time to coal, so I don't have a direct quote for you on that.

I do know that the present transportation costs have made it economically desirable for one Florida utility to burn South African coal. They can burn that cheaper than they can burn American coal.

Senator **Nickles**. Is the difference in the coal cost or the transportation?

Mr. **McDonald**. Transportation.

Senator **Nickles**. Transportationwise it's easier to bring coal from South Africa than it is by railroad?

Mr. **McDonald**. That's right and at times, I don't know whether this is currently true, it was cheaper to bring into Florida coal from South Africa, Australia, or Poland, than to burn American coal.

Senator **Nickles**. Is that because of some environmental laws or is that strictly because of transportation?

Mr. **McDonald**. My understanding is transportation.

Senator **Nickles**. Could you do a little work for this committee in supplementing those figures and show us what transportation costs would be say from South Africa or Poland or some other exporting country and possibly, Mr. Bagge, do you know today, are we importing coal from any of those countries? I'd be interested——

Mr. **Bagge**. We're importing a very limited quantity. It's far less than it was a few years ago because the cost of bunker fuel has risen substantially. The competition that we foresaw in the gulf utility area, the Texas Gulf Coast, for example, never did materialize because of the price of bunker fuel oil, and the Australians just couldn't deliver it that cheaply.

I would like to supplement my response and illustrate if I can the nature of the problem with respect to eminent domain authority. Even where it does exist——

Senator **Nickles**. Before we get on eminent domain let me finish a couple of transportation costs and then I'll supplement that.

So you basically, well the coal is $8 and you're paying $26 in transportation, you're paying three times in transportation?

Ms. **Cockrell**. Our coal is $7.50 to $8 and we have also looked at coal from Australia, South Africa and Poland, and we've had an Australian group consortium coming in who are very interested in developing their mines and looking at the possibility of bringing Australian coal in. We've had discussions with Mitsubishi in Japan as to shipping and all of those alternatives are continuing to be explored. It really to me is almost a tragedy when we can think of bringing coal across an ocean cheaper than we could just get it across our own country.

Senator NICKLES. Were they able to talk about final sales pricing on coal?

Ms. COCKRELL. It was beginning to get very competitive so we're continuing those discussions.

Senator NICKLES. Mr. Bagge, of course San Antonio is a long ways from Wyoming, but transportation is roughly 75 percent of the cost of coal, 80 percent, something like that. Is this the case, say throughout the western part of the country? It certainly wouldn't be the case with $40 coal, but possibly where you'd have transportation possibly two or three times as high?

Mr. BAGGE. That's fairly typical, Senator Nickles, of our movements of western coal into Detroit Edison, the Commonwealth Edison in Chicago. But transportation costs will oftentimes exceed the price of the coal FOB the mine by three or four times, and I might say if I can incidentally, that at the very time the city of San Antonio was experiencing increases in transportation costs, the price of the coal FOB the mine not only remained stable but in fact declined as the production of the mine expanded and you had the economies of scale reflected in the production costs of the coal.

Notwithstanding the fact that Congress enacted two pieces of legislation which forced increased costs of the coal producer, that is, the doubling of the expanding of Black Lung tax and the so-called Land Reclamation tax. Notwithstanding the fact that there were holes in the cost of the production to social goals that Congress forced the producer to pay. The price of the coal to the city of San Antonio FOB the mine were reduced during this period of time.

If I could, because of an earlier question, I'd like to illustrate if I can the nature of the problem with respect to even a State that has eminent domain authority. In the State of West Virginia, for example, the statute granting eminent domain is sharply limited by two significant provisions. First, the pipeline company must engage in some intrastate activity within West Virginia if there is "any reasonable demand therefore." In other words, as one of the conditions there has to be intrastate activity in addition to the pipeline.

And the second element that is a condition proceeding to the granting of eminent domain authority within the State of West Virginia, for example, requires a provision which is intended to prevent the use of coal pipelines which would in any way "result in any appreciable economic detriment to others." Whatever that means. So you've got two conditions that make the whole idea of eminent domain authority in the State of West Virginia ambiguous at best.

Senator NICKLES. I appreciate your comments. Let me ask you an additional question. For the ETSI project and for the Texas Eastern project, would those States basically having State eminent domain, is this legislation necessary for either of those projects to advance? In other words, if the States on which a slurry line is planned, if those States, if those legislatures have approved State eminent domain, is there a need for this legislation particularly in view of those lines which are very large? And I understand your comments for the Coalstream line, so I'm just looking at some of these lines and saying is this legislation needed before they can advance or not?

Mr. **Bagge**. I'd have to respond by saying you'd have to address those questions to the promoters of those particular projects.

Senator **Nickles**. I will do that and I appreciate this panel's interest and cooperation. Also, I would somewhat apologize for the fact that we've run so late.

I would like to ask the panel if they would be responsive to additional questions from members of the committee for the record and on the record. We would appreciate that.

Mr. **Mundy**. I'd like to make a comment on the subject of eminent domain. I'm not on this panel by any means because of some expertise in eminent domain or States' rights or any of the political implications that are part and parcel of this legislation. There are others far better qualified than I, but I might point out to you, I wish the entire committee were here because this isn't the only pipeline. The only time that a pipeline has been utilized for the transportation of materials, everything from molasses to coal. It does propose to move a vitally needed energy source to the northern tier of States. And the consortium that put together that pipeline spent a long time and a lot of very, very difficult permitting processes in order to put that pipeline together. Eminent domain was certainly one of them. And as Mr. Bagge has pointed out, sometimes the intervention of one political subdivision may in fact abort the entire process, and I think you and others of this committee are very well aware of what happened to the Northern Tier Pipeline after literally thousands of applications, and I think I can say without fear of perjury hundreds of permits. That pipeline today stands in great jeopardy and will probably not be built, not because one State blocked it, but because one political subdivision within the State blocked it. So many times you could put together all of these components and then all of a sudden because the very near interest of one small subdivision becomes dominant, the whole thing falls apart.

Senator **Nickles**. We appreciate your comments.

The committee will stand in recess until the hour of 2 o'clock.

[Whereupon, the hearing was recessed to reconvene at 2 p.m.]

AFTERNOON SESSION

The **Chairman**. The Committee will come to order.

Our next panel is Mr. Wesley Witten, president and chairman of ETSI Pipeline Project and Ross Workman, vice president, Continental Resources Co.

Gentlemen, we have your statements and they will be inserted in the record. You are free to proceed as you see fit.

STATEMENT OF WESLEY M. WITTEN, PRESIDENT, ETSI PIPELINE PROJECT, SAN FRANCISCO, CALIF.

Mr. **Witten**. Good afternoon. I am Wesley Witten, chairman and president of the ETSI Pipeline Project. In my testimony, I will summarize ETSI's experience in acquiring rights-of-way, use of State eminent domain authority, obtaining permits to use surface flood water, and the overall progress of the project. I have submitted, for the record, a detailed written statement to supplement this oral testimony.

In many ways, ETSI's struggle and success over the last 10 years serves as an example why Congress should enact Federal eminent domain legislation to advance the development of interstate coal slurry pipelines.

ETSI's acquisition of rights-of-way for the 1,400-mile main coal pipeline began in 1975. ETSI initiated contacts with the railroads in an attempt to negotiate easements. ETSI's requests were met with a solid stone wall and were specifically refused by each of the railroads in every instance. The project was further delayed when ETSI was informed by Federal officials that action on the preparation of an environmental impact statement would not be undertaken until ETSI demonstrated that railroad crossing easements could be secured.

ETSI, fortunately, found itself in a unique position because its route crossed lands and rights-of-way given to the railroads under the Railroad Acts of 1862 and 1864. When Congress gave this land in fee to the railroads, they did so for every other section and therefore, the railroads held only a surface easement for those alternating sections. ETSI's efforts to secure rights-of-way through what we referred to as our window program required an extensive process of title search and legal challenge to the railroads' right to deny our crossing.

This resulted in filing 65 individual lawsuits against the railroads, and we prevailed in every one. It is very important to note, that this "window program" is not available to most other coal slurry pipelines because in many parts of the country the railroads own their land in fee.

Mr. Chairman, I would now like to address the problems which confront an interstate pipeline when it must rely upon State eminent domain authority. After spending considerable time and effort in seeking eminent domain legislation in Nebraska, we were unsuccessful. Consequently, we had to give up a more direct, cost-efficient route and reroute the pipeline through the State of Colorado. The additional mileage will cost ETSI and ultimately its customers more than $50 million.

The State of Oklahoma has eminent domain legislation for coal slurry pipelines. ETSI initiated the administrative process in September of 1981 before the Oklahoma Public Service Commission. ETSI's application is strongly supported by potential customers including Oklahoma Gas & Electric, Western Farmers Cooperative, and Public Service Company of Oklahoma. Some 7 months since it sought application for a license, ETSI has yet to have a hearing. An efficient Federal eminent domain authority would avoid these unnecessary and costly delays.

Additionally in Colorado there is a question about the validity of the State eminent domain law. The eminent domain law is clear as it applies to coal that is produced within the State and shipped out of Colorado and coal that is imported into Colorado. It is unclear on the effectiveness of the eminent domain, the State eminent domain legislation for shipments across the State of Colorado.

Although right-of-way is an essential asset to the success of a coal pipeline project, a secure and dependable water source is equally important. It was determined at the very outset by ETSI that the coal pipeline project should not compete with agricultural requirements for water. After extensive analysis and negotiation, ETSI just this last December, concluded an agreement with the State of South Dakota to use floodwaters of the Missouri River stored in the Oahe Reservoir, located in central South Dakota. ETSI has the right to use up to 50,000 acre-feet per year by that agreement at the same time satisfying important water needs of citizens of South Dakota.

In consideration for this water right assignment, ETSI will pay South Dakota $9 million per year indexed for rises in the GNP. ETSI also agrees to deliver water to communities and rural water systems in western South Dakota.

The relative amounts of the ETSI agreement, we have an agreement for 50,000 acre-feet. We initially expect to use 20,000 acre-feet for first of the coal slurry pipeline. And some statistics on the Missouri River are of interest.

In Sioux City, Iowa, downstream from the Oahe Reservoir, the annual average stream flow in the Missouri River is 20 million acre-feet. The Oahe Reservoir stores 23 million acre-feet. The storage level today is about 18 million acre-feet. And the lowest level it has ever reached is about 15 million acre-feet after the 2-year drought period that concluded last year.

As mentioned earlier, the evaporation rate from the reservoir is about a million acre-feet. The annual rainfall and snowfall contribution to the reservoir is about 500,000 acre-feet. Sometimes it is then referred to as the net evaporation loss is about 500,000 acre-feet.

The Bureau of Reclamation in a programmatic EIS prepared in 1977, fully describes the Missouri River, the streamflows that I've talked about, the effectiveness of those mainstem storage reservoirs.

My belief is that Congress should clearly provide, as it does in S. 1844, that a State will not lose the ability to control and manage its water resources by allocating them to a coal pipeline engaged in interstate commerce.

Some additional questions have come up about the environmental impacts of a coal slurry pipeline. The projects must meet, any coal slurry pipeline, and ETSI in particular, must meet all of the State and Federal EPA requirements. We do have permit applications for all of those requirements and will meet all of them. We have been running a coal evaluation plan in Arkansas for about 6 months at the expense of about $15 million.

One of the major factors in that coal evaluation plan is to determine the water treatment and water quality of the water that will be discharged into the streams or used as the powerplant makeup.

ETSI is well on schedule in securing the rest of the necessary rights-of-way for our pipeline. We believe, however, it would be desirable for Congress to clarify the right of coal pipelines to enter into long-term contracts. Such a right provides the shipper the security of supply and price over the term of the agreement. The opportunity to compete is all our industry seeks.

Coal users of this Nation and coal producers should not be deprived of this competitive transportation mode. If coal pipelines cannot offer competitive service and competitive prices, they will not be built. If they can, and I believe they will, the national economy and the national interest will benefit from this increased productivity.

In conclusion, Mr. Chairman, ETSI urges your committee to report S. 1844 to the Senate floor.

[The prepared statement of Mr. Witten follows:]

STATEMENT OF

WESLEY M. WITTEN,
PRESIDENT,
ETSI PIPELINE PROJECT, A JOINT VENTURE

BEFORE
THE SENATE COMMITTEE
ON ENERGY AND NATURAL RESOURCES

MAY 10, 1982

INTRODUCTION

Mr. Chairman, I wish to thank your Committee for giving me the opportunity to appear before you to discuss the ETSI Pipeline Project and S. 1844, the Coal Distribution and Utilization Act of 1981. I am pleased to inform this Committee that the ETSI Project is moving forward on schedule and is testimony to that unique combination of technology and business capability known throughout the world as "American Ingenuity". In many ways, however, the struggle and success of ETSI over the last ten years serves as an example of the reason Congress should enact Federal eminent domain legislation in order to advance the development of interstate coal pipelines. The purpose of my remarks will be to provide this Committee with a review of our project's history and success, but by the same token to underscore today the need for enactment of S. 1844 in this session of Congress.

ETSI IN BRIEF

The partners in the ETSI Project are Atlantic Richfield Company, Bechtel Petroleum Inc., Kansas-Nebraska Natural Gas Company, Lehman Realty Company and Texas-Eastern Transmission Company or their subsidiaries. The ETSI Coal Pipeline Project consists of four major operating systems: (1) a water supply system, (2) coal slurry preparation plants, (3) pipelines and pump stations and (4) dewatering plants.

The three coal slurry preparation plants will receive coal from six mines in the Powder River Basin of Northwestern

Wyoming. There the coal will be crushed and mixed with water to form a slurry for transport by pipeline. The mixture will be half water and half coal. Approximately 20,000 acre-feet per year of water will be required for the transportation of 30 million tons of coal. ETSI entered into a contract with the State of South Dakota to purchase water from the Oahe Reservoir, located in Central South Dakota, and has been issued a water use permit for up to 50,000 acre-feet of water per year.

The coal slurry will be transported through 71 miles of gathering pipelines to the main slurry pipeline, which will extend underground approximately 1386 miles through Wyoming. Colorado, and Kansas to receiving terminals at utility electric generating plants and industrial facilities in Oklahoma, and Arkansas by direct pipeline deliveries; and to Louisiana by barge from Arkansas.

ANATOMY OF COAL PIPELINE

Mr. Chairman, before the sponsors of an interstate coal pipeline project can commence construction, there are two principal objectives it must obtain. First, permanent easements must be obtained from the fee owners of the land across which the pipelines will be built. Second, rights must be secured to adequate long-term supplies of water.

I would first like to focus on the principle consideration of this hearing, that of eminent domain authority. In my assessment, right-of-way acquisition has proven to be the most difficult of all obstacles to overcome in developing a successful interstate coal pipeline project. ETSI's right-of-way has been obtained in states which grant and do not grant state eminent domain authority to coal pipelines. I might add, that few states have granted this right to coal pipelines while both oil and gas pipelines have the benefit of this right in many states. Even within the states with eminent domain for coal pipelines, the lack of uniform procedures between the various states makes this a mixed-blessing at best.

ETSI'S RIGHT-OF-WAY PROGRAM

ETSI's right-of-way acquisition for the 1386 mile main coal pipeline began in 1975. The venture partners of ETSI found that the greatest difficulty encountered was in securing permission to cross under the various east-west railroad routes which had to be crossed in our southeasterly pipeline routing. ETSI officials initiated contacts with the various railroads involved in an attempt to negotiate easements or licenses to cross under the track beds located across our proposed route. I would add that it is generally a matter of routine for railroads to issue permits or licenses for crossings to other pipeline activities once it can be shown that there will be no interference with the operation of the railroad. Our representatives maintained a diary of our contacts with railroad officials and our files show that we were specifically refused crossing permits in every instance. Also, at about this time, we were informed by federal officials that action would not be undertaken for preparation of an environmental impact statement until ETSI had demonstrated that railway crossings could be secured. This meant that the long schedules normally occasioned by the National Environment Protection Act process of demonstrating the environmentally sound manner in which the system would be built and operated would be compounded by protracted efforts to secure crossing approvals. I would like to point out that in ETSI's final EIS issued by the Bureau of Land Management last July, ETSI's coal slurry pipeline was found to be an environmentally sound way to transport coal.

At this point, ETSI undertook what was termed the "window program" for obtaining rights of way from the railroads. Extensive title searches were made of the railroad land grants that lay across our proposed route. Records indicated that all the railroads ETSI crossed were built under the Federal Railroad Acts of 1862 and 1864. Our land division identified crossing points at or near our pipeline route where the land in question was held as an easement under the Railroad Land Grant Acts rather than in fee ownership. ETSI then began an extensive process of legally challenging the authority of the railroads to deny our crossing requests. It became necessary to institute 65 individual law suits against the railroads to establish ETSI's rights. ETSI's Window Program was completely successful at the trial court level as well as in appellate review by both the Eighth and Tenth Federal Circuit Courts of Appeal and the Oklahoma Supreme Court. See, Energy Transportation Systems, Inc. v. Union Pacific Railroad Co., 606 F. 2d 934 (10th Cir. 1979). Energy Transportation Systems, Inc. v. Union Pacific Railroad Co., 619 F. 2d 696 (8th Cir. 1980), and Energy Transportation Systems, Inc. v. Kansas City Southern Railroad, 638 P. 2d 459 (Okla. 1981).

Although this costly and time consuming litigation enabled ETSI to obtain rights of way to cross under the rail lines, we had to realign the pipeline so that it would cross at the windows opened by the courts.

This legal process added at least an additional two years to the preconstruction stage as well as substantial direct legal fees and an additional $50 million to our projected construction costs. Fortunately, ETSI was successful in this protracted litigation and a precedent has now been set which could allow development of some western interstate coal pipelines that are capable of aligning their rights-of-way to fit the railroad ownership interests that were granted by Congress under the Railroad Acts of 1862 and 1864. Unfortunately, for coal pipelines in other areas of this nation, the ETSI Window Program approach is not feasible because the railroads own the underlying land in fee.

STATE EMINENT DOMAIN PROVISIONS

Mr. Chairman, I alluded to the problems that confront an interstate coal pipeline when it must rely upon state eminent domain authority. The adequacy of state eminent domain statutes for interstate coal slurry pipeline development was addressed by the Office of Technology Assessment in their 1978 report on coal slurry technology. The OTA Report stated that a consequence of not granting federal eminent domain authority would be the costly and inefficient routing of pipelines and the possible total inability to construct a pipeline across a state which is blocking the right-of-way. Specifically, that report noted:

> Under the "Public Purposes" requirement, circumstances in a "State of Origin" and in an "Intermediate State" may preclude a pipeline from being considered as serving a public purpose within the state or being a common carrier; in fact, and thereby prevent the valid exercise of State eminent domain authority by such pipeline. Coal Slurry Pipelines: A Technology Assessment, Office of Technology Assessment, Congress of the United States, Washington, D.C. (March 1978), page 136.

Although several studies and reports have been written which review the extent of state eminent domain legislation for coal slurry pipelines, only experience in the real world can be used as a guide for the adequacy for such provisions.

For example, the ETSI Pipeline Project will be built through the states of Wyoming, Colorado, Kansas, Oklahoma, and Arkansas. The most efficient route for the pipeline would have traversed a western portion of the State of Nebraska. However, due to sufficient railroad land holdings and political influence in that area, private negotiation for rights-of-way were unsuccessful. I might add, that it is ETSI's policy to use eminent domain actions only as a last resort, when all efforts at negotiations have failed. To date, we have acquired easements for right-of-way on 2368 parcels of property, and only 14 have been acquired through the use of state eminent domain authority. In order for ETSI to have an opportunity to acquire all its needed rights-of-way, it would be necessary for the State of Nebraska to provide coal slurry pipelines eminent domain authority. After considerable cost, time and effort in an unsucessful attempt to obtain eminent domain legislation in the State, the proposed pipeline route across Nebraska had to be reconsidered. Necessary rerouting around Nebraska will result in an additional $50 million in costs to the project and ultimately to the customer.

Wyoming is the state of origin for the ETSI main coal pipeline. Successful arms-length negotiations have made it relatively unnecessary to initiate eminent domain actions in Wyoming. Wyoming state trial courts have ruled uniformly that a coal pipeline does fall within the class of purposes and uses for which the authority for eminent domain has been provided by state statute. Procedurally, Wyoming eminent domain is simply a matter of civil litigation and coal pipelines are treated no differently than railroads, electric utility lines, gas transmission lines, or other industrial activities that are classified as having a public purpose.

The situation in Colorado is not yet clear. Fortunately, successful negotiations with the individual landowners have made it unnecessary for ETSI to test Colorado's state eminent domain authority. The present Colorado statute appears to grant eminent domain powers to those pipelines that are transporting coal from points within Colorado to points within or outside the state. The unresolved question is whether the same authority would exist for coal which originiates at mines outside of Colorado and is to be shipped through the state.

Efforts in Kansas to enact eminent domain legislation for coal pipelines were suspended when the railroads testified that under Kansas law the railroads had only surface easement rights. Familiarity with pipeline right-of-way and state law which limits the ability of railroads to block such efforts has enabled ETSI to proceed successfully on the basis of negotiation alone.

In 1977, the Oklahoma Legislature enacted legislation that created the right of eminent domain for coal pipelines built totally within or through that state. However, the ability to exercise the right of eminent domain is conditioned upon the issuance of a license by the Oklahoma Corporation Commission. In September, 1981, ETSI filed an application for a license.

The ETSI Project is presently pending before the Corporation Commission seeking such authority. However, after seven months this administrative process is becoming increasingly protracted and drawn out by intervening parties, primarily railroads, who are contesting the issuance of a license. To date, ETSI has not received a hearing on the merits of its application. ETSI's application, I might add, is supported by such Oklahoma utilities as Oklahoma Gas and Electric, Western Farmers Cooperative, and Public Service Company of Oklahoma.

The State of Arkansas has an eminent domain law similar to Wyoming. At present, it has been unnecessary for the ETSI Project to use the Arkansas statute. As a "State of Destination" the public purpose test inherent in state eminent domain law would be favorable to ETSI in Arkansas.

Mr. Chairman, as this summary of ETSI's experience with state eminent domain statutes indicates, the public purpose test of the intermediate states as well as the uncertainties associated with various state administrative processes makes the prospect of relying upon state eminent domain authority a speculative and unreliable basis for developing a major interstate coal pipeline project. ETSI's experience of having to contend with years of unnecessary delay, will mean additional costs to coal consumers serviced by its pipeline.

ETSI WATER PROGRAM

As part of our water development program, ETSI considered, legal as well as physical availability of potential water sources. Primary emphasis was given to the development of previously unappropriated water sources.

The prospect of bringing other water into the Powder River Basin was considered with emphasis placed upon diverting unappropriated water from large reservoirs on the main-stem of the Missouri River. In this regard, the principle reservoir of interest was Oahe Reservoir located in central South Dakota. The Department of the Interior, in a programmatic EIS "Water For Energy - Missouri River Reservoirs" (1977), estimates that one million acre-feet can be made available to energy developers in the northern great plains from Missouri River waters but as yet unappropriated. The final EIS on the ETSI Project found that the "widest range of beneficial uses, would be obtained by the use of Oahe" and that this alternative "would not affect the use of the environment by future generations".

The amount of water available to ETSI is approximately ten percent of the annual net evaporation from Lake Oahe, and one tenth of one percent of the river flow over the Oahe Dam. In fact, the gauging equipment which measures the flow over the dam is not sensitive enought to measure the 50 thousand acre-feet which ETSI will use each year. Likewise in the year 2050, there will remain some 11 million acre-feet per year of unappropriated flood waters flowing downstream. ETSI's permit for 50,000 acre-feet/yr could be provided without any interference with existing or potential water users.

The Oahe Reservoir is impressive in terms of its physical availability. The six main stem dams on the Missouri River can hold 73 million acre-feet, nearly three times the flow of the Missouri River at Souix City, Iowa. The average annual storage behind the Oahe Dam is 18 million acre-feet with a maximum of 23 million acre-feet.

ETSI initiated negotiations with the State of South Dakota and federal agencies to secure the use of surplus Oahe Reservoir water. Although the South Dakota Legislature did approve such a proposal in 1977, final executive approval was withheld. This apparent setback was dramatically reversed in 1981 when Governor William Janklow responded favorably to requests from the ETSI Project to make Oahe Reservoir the primary source of supply to the pipeline.

The South Dakota legislature, in special session, in September, 1981 passed enabling legislation which created a class of water rights for energy industry projects. Diversion of surplus water outside of the state by an energy industry was declared by the legislature to be a "beneficial use". Also, authority was given to the South Dakota Conservancy District to enter into contracts for the assignment of water rights to qualified energy industry users.

After three months of intense negotiations between top ETSI executives and Governor Janklow of South Dakota and his Secretary of Water and Natural Resources, Bob Neufeld, an agreement was executed in Rapid City, South Dakota, on December 23, 1981. The contract provided that ETSI would receive assignments of a South Dakota water right for 50,000 acre-feet per year and ETSI would have ten years to put the full appropriation to use. This agreement demonstrates that energy development and the other water resource needs of a state can be resolved through the mutual cooperative efforts of industry and state government.

As consideration for the water right assignment, ETSI will pay an annual water use fee of $9 million to be adjusted by the rise in Gross National Product. These revenues will allow the state to develop its water resources for a number of beneficial uses. ETSI has also agreed to provide pipeline capacity in its water pipeline, free of charge, to deliver water to western South Dakota communities and rural water systems. ETSI will also bear the cost of constructing the costly pressure reduction systems at the points where the domestic systems will tie into ETSI's line. Many of these communities today are served by water systems where the water is of poor quality.

I was pleased to head ETSI's negotiating team in this effort. I speak from personal experience. Mr. Chairman, when I tell you that I have no doubt of the ability of interstate coal pipeline projects to acquire water rights in a manner that is in the public interest of the authorizing state, totally consistent with its water laws and acceptable to the commercial interest of the pipeline developers. The ETSI Project has always had the highest regard for the authority of individual states to allocate waters within their boundaries and firmly believes that this is an area that must be left solely to the discretion of the individual states as S. 1844 clearly does.

ETSI's history of water acquisition South Dakota stands as an excellent example of the ability of states and coal pipelines to locate developed water sources without the need for federal intervention. I believe Congress should clearly ensure that a state will not lose the ability to control and manage its water resources by allocating them to a coal pipeline that is engaged in interstate commerce. This, likewise, has been a strong belief of many state water experts. The language in S. 1844 will be an effective resolution of this issue in favor of the respective state statutes.

Mr. Chairman, the ETSI Project, as I have pointed out, has been unique in its ability to acquire right-of-way without the use of federal eminent domain authority. Coal producers of this nation should not be deprived of this effective competitive transportation technology. The ETSI Project hopes to begin delivery of the first phase of 30 million tons of coal annually in 1985. The potential shippers to whom we expect to offer contracts in the near term are anxious for the day when there will be some competition in the coal transportation market. The financial institutions with whom we are in contact are equally interested in loaning private capital for an investment they see as economically and technologically sound. It is important that coal pipelines be able to provide a transportation service that substantially benefits electric power consumers.

It is important that coal pipelines be able to compete on an equal basis with the railroads. The western land grant railroads had access to federal eminent domain authority and now have the right to enter into long-term contracts for coal unit trains. We -- who wish to compete with the railroads for coal transportation -- need the same rights.

Mr. Chairman, ETSI urges you, the members of your Committee and the Congress to give early and favorable consideration to S. 1844.

The CHAIRMAN. Thank you. Mr. Workman?

STATEMENT OF ROSS WORKMAN, VICE PRESIDENT, CONTINENTAL RESOURCES CO., WINTER PARK, FLA., AND CHAIRMAN, SLURRY TRANSPORT ASSOCIATION, WASHINGTON, D.C.

Mr. WORKMAN. Thank you, Mr. Chairman. I am Ross Workman and I am the chairman of the Slurry Transport Association.

I appreciate the opportunity to testify today on behalf of the Slurry Transport Association about what coal pipelines can contribute to the satisfaction of the Nation's energies. My testimony covers a variety of subjects, some of which have been covered earlier this morning, and I will not dwell on those. They include the economics of pipelines, the beneficial effects of competition for coal transportation, and the environmental benefits of slurry pipelines.

What I would like to do in my summary of my remarks is focus on two questions, one of which is obviously very important to the committee this morning, and that is the question of whether or not there is indeed a Federal need for a Federal eminent domain statute or whether the problem can satisfactorily be handled by State eminent domain laws.

In addition I'd like to make a few comments on the importance of this country to developing coal slurry technology.

Regarding eminent domain laws, it is our belief that coal pipelines will not be built in this country in significant numbers without a Federal eminent domain statute being passed by Congress. The long-distance transportation of coal is inherently an interstate matter. It is a subject that is not of great concern to many States.

An action compelling interest to those States, the possibility of enacting such statutes in all the required States is very slim. Moreover, the States through which a pipeline would travel, but from which it would not pick up any coal, or to which it would not deliver any coal, have a questionable justification for granting the power of eminent domain to the pipeline.

Our experience in the State of Florida, where my company, which proposes to build a coal pipeline to carry coal from the Illinois basin in Appalachia to serve utilities in Georgia and Florida, illustrates the problems that arise in passing eminent domain in the State legislature. We were a company that had been a natural gas supplier for the State of Florida for 20 years. We supplied 85 percent of the gas to the State of Florida. Our headquarters were in that State. We seemed to be and were a good corporate citizen. It was the State's announced policy to promote the development of coal as the fuel to substitute for imported oil in the State of Florida. All of the elements for a State's passage of a favorable law were present. And our experience was that it took us two sessions of the legislature to pass a law which turned out to be unworkable as completed because of the damaging, crippling amendments that were lobbied into the bill by the railroads.

Incidentally, the railroads in Tallahassee consistently made the argument that eminent domain laws for coal pipelines were a Federal question because it was an interstate matter. It was interstate transportation and should be handled with Congress and not the States.

That sort of problem in Florida is typical of the kinds of problems that can be expected if you try, or if we were to try, to get all of the 9 or 10 States that will be involved in the Coalstream pipeline to pass legislation which would be consonant from one State to the next.

For example, the Florida statute requires that the pipeline using the Florida eminent domain power could only do so if it were subject to regulation by the Florida Public Service Commission. Now if another State adopted a similar law or if they all did, you would have the unworkable situation of one pipeline being regulated by overriding States when in fact it was carrying out interstate commerce in the first place.

Also, the Florida law requires that every State involved in the pipeline must pass an eminent domain statute before the Florida law becomes effective. The eminent domain statutes that have been passed by various States have a variety of these kinds of conditions.

I would like to submit for the record a memorandum which we have had prepared which analyzes the State eminent domain authority for interstate coal pipelines in 20 States. This does not purport to cover the entire 50 States, but it covers all of the States that ETSI and the coalstream would be involved in.

The CHAIRMAN. Without objection, it will be so inserted.

Mr. WORKMAN. The kinds of potentially conflicting requirements; for example, Texas has a 3-year limitation on coal haulage contracts. Previously, the provision in the West Virginia statute was alluded to which requires no economic detriment to others without any definition of what that means. Similarly, other conditions have crept into each of these statutes, and we would expect them to be put forward by the railroad opponents that have returned, if we try to do it State by State, and that is the reason we believe that it simply cannot be done.

If these lines are going to be built, they have to be built under a Federal statute, and it's up to this Congress to do that.

The other subject that I want to touch on briefly is the importance to the United States of developing the slurry transportation technology. We are at a point where the synfuels industry is fading from the scene. The Alaskan gaslines have been put on the back burner. Two major sources of technological sources of protection of this country from interruptions of imported oil have disappeared, or are disappearing, or being deferred. On the other hand, while the slurry industry in the United States has been waiting to get the opportunity to develop coal-transportation systems for America's needs, other countries are moving ahead.

Right now Japan and Canada are jointly studying slurry pipelines for transportation of western Canadian coal to Pacific ports for export. In Holland there is a slurry-unloading facility under construction for removing coal from ships, whether it was loaded by slurry or loaded conventionally. A West German company has become a leader in slurry technology. They are presently conducting a pipeline in Russia.

Now other countries move ahead with developing slurry technology; the United States waits for the one thing that it has required, for the development of the industry in this country, and that is the

Federal law. This industry does not require or request any Federal assistance, economic assistance of any type—it never has. All we seek is the opportunity to compete with the railroads, and the opportunity can only be there if Congress passes a law that enables us to acquire rights-of-way.

For these reasons, Mr. Chairman, we submit that it is necessary and in the Nation's interest for Congress to pass a law such as S. 1844, and we are therefore urging the committee to report favorably on that bill, and for each member of the committee to support it on the Senate floor.

Thank you very much.

[The prepared statement of Mr. Workman follows:]

STATEMENT OF ROSS WORKMAN

CHAIRMAN

SLURRY TRANSPORT ASSOCIATION

BEFORE A HEARING OF THE

ENERGY AND NATURAL RESOURCES COMMITTEE

OF THE

UNITED STATES SENATE

ON

S. 1844, THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

MAY 10, 1982

Mr. Chairman and members of the Committee, I am Ross Workman, Chairman of the Board of Directors of the Slurry Transport Association and Senior Vice President, Pipeline Operations, Continental Resources Company. The Slurry Transport Association, headquartered in Washington, D.C., is an organization of eighty domestic and foreign companies and individuals that are interested in the construction and operation of slurry pipelines, particularly coal slurry pipelines.

Coal pipelines can provide substantial economic and energy benefits to our nation as a supplemental and alternative method of transporting coal. The benefits of coal pipelines are most pronounced in interstate systems that transport large quantities of coal over long distances. In most cases, however, interstate coal pipelines can only be developed if legislation such as S. 1844 and H.R. 4230, which is pending in the House, is enacted to grant such systems the Federal power of eminent domain.

The purpose of my testimony will be to discuss the benefits of coal pipelines and the reasons that legislation granting the Federal power of eminent domain to interstate coal pipelines is both necessary and in the national interest. I appreciate the opportunity to appear before you today.

I. INTERSTATE COAL PIPELINES: A DESCRIPTION:

The term "interstate coal pipelines" covers a number of methods for transporting coal. The two coal pipelines that have been developed in the United States mix coal and water in a "slurry" for transportation. However, various companies and researchers have considered using methanol, liquefied carbon dioxide or petroleum as the medium for the pipeline transportation of coal. At least one company is considering the development of a pipeline that would use a medium of brine to transport coal in some form of container. The definition of "interstate coal pipeline distribution system" that is contained in S. 1844 is sufficiently broad to cover all of these coal pipeline systems.

Because the coal pipelines that are in existence today and that are most likely to be developed use water as the medium of transportation, I will briefly describe a typical interstate coal slurry pipeline system.

In such a system, coal is gathered from mines by pipeline, rail, truck or conveyor belts and delivered to one or more preparation facilities. At the preparation facility, the coal is mixed, cleaned and treated, if necessary, then crushed to the particle size of sugar and mixed with water at the rate of one ton of coal to one ton of water. The resulting slurry of coal and water is stored in tanks with mechanical agitators to prevent settling. From the storage tanks, the slurry is introduced into a buried steel pipe and is propelled through the pipe at a velocity of approximately 6 feet per second by a series of pump stations that are located at intervals of 50 to 150 miles, depending on the terrain, pipe size and other such design considerations. No water is added to the slurry after the slurry is introduced into the buried steel pipe for transportation.

At the delivery end of the pipeline, the slurry is introduced first into agitated tank storage, from which it is fed into a dewatering facility. Dewatering is accomplished by natural settling, vacuum filtration or by centrifuge. Any finely ground coal still suspended in the water can be separated by chemical flocculation. After additional drying by the application of heat, the coal is then stored, transported further by other modes, or introduced directly into grinding equipment at a power plant and injected into the boilers. The water reclaimed from the slurry normally will be used in an electric generating station's cooling system to condense steam or will be cleaned for discharge. Attachment 1 provides a schematic of the various operations that are included in a coal pipeline system.

To date, companies have announced plans for the construction of nine interstate coal pipeline systems that are in various stages of development. Seven of the projects would originate in the West. One project, which is being developed by my company, originates in the East. In the 1960's, another coal pipeline was proposed to move coal from West Virginia to New Jersey. While that project was shelved when eminent domain legislation failed, the project conceivably could be revived. A brief description of each of the current proposed coal pipeline systems is included in my testimony as Attachment 2.

My company proposes to build an interstate coal pipeline that will be operated by our subsidiary, the Coalstream Pipeline Company. (See Attachment 3). Our pipeline will deliver up to 55 million tons of coal annually 1500 miles from the Illinois Basin and Appalachian coal fields to Florida and Georgia. In 1981 dollars, our interstate coal pipeline system will cost $3 billion to construct and will require 2-1/2 to 3 years of actual construction time. We are also considering the development of a 10 million tons per year coal slurry export facility to be located at an Atlantic port in Florida, Georgia or the Carolinas.

II. NATIONAL BENEFITS OF INTERSTATE COAL PIPELINES:

A. Will Provide Competition in Coal Haulage Rates:

For the foreseeable future, the vast majority of domestic coal shipments will be made by rail. The National Energy Transportation Study (NETS), that was published in July, 1980, states that in 1976, 73% of all coal was originated by railroads, 12% by water and 15% by truck. (NETS, p. 61). The Study projects that the rail share of coal haulage could reach

87% - 90% in 1990. (See NETS, Figure 3-1 p. 33). A recent study by Data Resources, Inc. states that 468 million tons of coal were moved by rail in the U.S. in 1980 and, assuming that no interstate coal pipelines are built, rail haulage of coal will increase to 746 million tons in 1990 and 1,156 million tons in 2003. (Attachment 4, Table 4).

The Staggers Rail Act of 1980 began to return market regulation to the railroads by deregulating many railroad activities, including, with some limitations, the haulage of coal. In addition, the Staggers Rail Act assured that railroads have the authority to enter into long-term coal haulage contracts. The full benefits of market regulation of railroad operations and long-term contracts for rail coal haulage will not be realized, however, unless the railroads are faced with viable competition from other modes of transportation. Coal pipelines can provide that competition.

To date, coal pipelines have proven to be cost effective and reliable modes of transporting domestic coal in two basically intrastate systems in Ohio and Arizona. An intrastate coal pipeline that was operated for several years in Ohio by Consolidation Coal Company was mothballed in 1963 after six years of operation when the competing railroad dropped its coal haulage rate from $3.47/ton to $1.88/ton. Latest figures indicate that the Black Mesa Pipeline in Arizona, which is operated by an affiliate of the Southern Pacific Railroad, is delivering coal efficiently and reliably at an extremely competitive rate. I am told that the Black Mesa Pipeline was built because the cost of building a railroad line across the rugged terrain in that part of Arizona was prohibitive.

The economics of the proposed pipelines appear to be equally attractive. A recent study of our Coalstream project by A.T. Kearney, Inc. (May, 1981) concluded that transporting that amount of coal by pipeline rather than rail would result in an aggregate transportation savings of $12 billion in 1980 dollars for the twenty-year period beginning in 1988. (See Attachment 5). Such dramatic results are achieved by coal pipelines because most of the costs of a coal pipeline system are capital costs, which are insulated from the effects of inflation after construction is completed.

The Preliminary Report of the National Energy Transportation Study has reached a conclusion that is consistent with our nation's experiences with both the Ohio pipeline and the Black Mesa line and with the results of the Kearney study:

> "Under appropriate conditions, coal slurry pipelines can be the economical and environmentally preferable means of transporting coal.
>
> Also, in light of pending deregulation of the railroad industry, coal slurry pipelines would tend to keep rail rates at a more competitive level".

(NETS, p. 76)

B. Will Provide Additional Capacity for Coal Haulage:

The National Energy Transportation Study (July, 1980) projects that total coal haulage by all modes of transportation will triple between 1985 and 1990, reaching a total of 1,184 to 1,345 million tons (p. 33). Increases of this magnitude will create a substantial strain on our railroads, waterways and highways that coal pipelines can help to alleviate. According to the NETS Study,

> Coal slurry pipelines have been resisted by the railroads because of fears that pipelines would reduce rail coal shipments and profits. However, the future demand for coal in areas currently being served by railroads is expected to be sufficiently large to require additional coal distribution capacity. Coal slurry is an efficient way of providing some of this additional capacity. Recent analyses conducted for DOE indicate that with or without coal slurry pipelines, railroad transport of coal will increase dramatically. The addition of coal slurry pipelines provides another option to insure that the overall distribution system expands efficiently to meet national coal production goals.
>
> If all the slurry pipelines currently under consideration are built and operated at full capacity, they will be able to carry 176 million tons by 1990. This amounts to 19 percent of the increase in inter-BEA coal traffic. However, a recent study conducted for the Department of Energy concluded that slurry pipelines are most likely to be carrying between 70 and 126 million tons of coal in 1990. This amounts to between 5 and 9 percent of the total coal to be transported in 1990.
>
> (NETS, p. 776, et seq.)

C. Will Assist U.S. Steam Coal To Compete In The World Coal Market:

1. The European and Pacific Rim Markets:

U.S. steam coal must compete against foreign coal in at least three distinct markets: the European market, the Pacific Rim market and the U.S. market. The projected foreign market for U.S. steam coal is huge. (See Attachment 6). For example:

- Belgium-Luxembourg, Denmark, France, Italy, The Netherlands and West Germany used 46.1 million tons of steam coal in 1979, but are projected to use 124.2 million tons in the year 1990 -- an increase of almost 300% in 10 years.
- Japan, Korea and Taiwan used 13.9 million tons of steam coal in 1979, but are projected to use 67.9 million tons of coal in 1990 -- an increase of almost 500% in the same 10-year period.

During my recent visits in West Germany, The Netherlands and France, I learned that Europeans are interested in purchasing our steam coal due to the general stability of the United States, but that our coal must also be competitive in price. The testimony by coal importers from Europe and the Pacific Rim nations at Senator Warner's excellent hearings in December, 1981 was to the same effect. The Europeans with whom I visited expressed concerns about railroad dominance in the U.S. and the impact of the Staggers Rail Act on the cost of U.S. coal. Apparently, my experiences are not unique.

On September 19, 1980, Dr. Carroll L. Wilson, Director of the World Coal Study, testified before the Senate Energy and Natural Resources Committee in a hearing on coal exports. In reporting on the concerns about the U.S. that are expressed by steam coal importers in Europe and the Far East, Dr. Wilson reviewed some of the fears that had been expressed to him, stating:

> "They also see a rail domination which would exclude supply by alternative systems such as slurry pipelines." (p. 262 of the transcript)

Thus, for the present, the security of the U.S. as a source of coal has offset successfully our price disadvantages of 15 to 40 cents per million Btu's in the European market and 30 to 60 cents per million Btu's in the Pacific Rim market. But we cannot rely on this "security" premium alone in the future. Competition from interstate coal pipelines can operate to moderate the transportation costs of our steam coal and assist the U.S. to compete in foreign coal markets.

2. The U.S. Market:

We must not overlook the fact that U.S. coal must also compete for the growing U.S. steam coal market as well. The focus of that competition is not the mine-mouth price of coal, but rather the delivered price of coal, which includes the cost of transporting coal to its point of use.

My company intends to participate in the delivery of coal to the markets of Georgia and Florida through our Coalstream

Pipeline. In 1980, 31 million tons of coal were used in the two states, with 9 million of the 31 million tons being used in Florida. Included in this figure are almost one million tons imported from foreign sources: 750,000 tons of steam coal were imported from South Africa by Gulf Power Company and 240,000 tons of coal were imported from Poland by Tampa Electric Company. All of the imported coal was used in Florida.

By 1990, the steam coal market of Georgia and Florida is projected to more than double to 84 million tons. U.S. steam coal will be forced to compete for this expanded market with not only Poland and South Africa but the developing coal production capacity of South America. For example, Exxon is developing the world's largest surface mine at Cerrejon, Colombia which reportedly will be in production by the mid to late 1980's. Utilities in Florida and Georgia are under an affirmative obligation to purchase the least expensive coal available to them. Thus, our eastern coal may simply lose much of the growing Florida and Georgia market to foreign coal unless the delivered cost of U.S. coal can compete with the delivered price of imported coal.

D. Will Be An Environmentally Superior Mode of Transportation:

Pipelines offer significant environmental advantages over other modes of transportation. Coal pipelines are noiseless, safe and underground. Coal pipelines do not interfere with other surface activities; do not emit dust or create noise problems; and are not affected by the hazards of weather. The noise levels of trains can be objectionable in cities and towns, especially in small towns where the rights-of-way often pass through residential neighborhoods. In addition to noise pollution, rail traffic contributes "nuisance" pollution at grade crossings through the interruption of automotive traffic and the disruption of normal activity in small towns, especially where the rail line passes through the center of the town.

E. Other Benefits of Interstate Coal Pipelines:

In February, 1980, National Economic Research Associates (NERA) completed an assessment of the economic and energy benefits of our Coalstream Pipeline. Assuming that all of the incremental utility coal market and a portion of the industrial coal market in Georgia and Florida would be transported by coal pipeline, the NERA study projected the following cumulative economic and energy benefits from the project for the decade 1990-2000:

(1) a saving of 633.2 million barrels of diesel fuel, No. 2 heating oil and railroad fuel;

(2) a saving of $4.8 to $9.2 billion in transportation costs to utility customers;

(3) a saving of $19 billion in the nation's balance of payments;

(4) the creation of 5,200 new coal mining jobs; and

(5) an increase in coal industry revenues by $432 million per year.

III. NEED FOR FEDERAL EMINENT DOMAIN LEGISLATION:

Interstate coal pipelines can be built without Federal financial assistance. Interstate coal pipelines cannot, however, be built in most instances unless Federal legislation is enacted extending the Federal right of eminent domain to interstate coal pipelines. Proof of this reality exists in the fact that no major interstate coal pipelines have been developed in this nation during the 20 years since Federal eminent domain legislation was first submitted to Congress in 1962.

Faced with active railroad opposition, state legislatures cannot deal effectively with the issue of eminent domain for coal pipelines in their usual abbreviated sessions, particularly when the fundamental issues of providing essential state services are today so difficult and time consuming. These practical problems are particularly true in those states through which pipelines must be built, but in which coal is neither picked up nor delivered. In fact, such states may encounter legal difficulties in identifying benefits to their citizens that would support the grant of state eminent domain authority to such coal pipelines. In fact, similar experiences led to the amendment of the Natural Gas Act in 1947 to grant the Federal power of eminent domain to interstate gas pipelines. (See Attachment 7).

Attempts to build interstate coal pipelines without Federal eminent domain authority and to encourage the enactment of appropriate state eminent domain statutes have not been notably successful. The experiences of ETSI Pipeline Project are most instructive in this regard and will be reported by Wes Witten, Chairman of ETSI.

Our Coalstream Pipeline project simply cannot be built without legislation such as S. 1844 and H.R. 4230. Our pipeline must cross the lines of 11 railroad companies a total of 170 times from West Virginia and Illinois to Florida. Of the eleven states through which our pipeline could be routed to reach Georgia and Florida, only three grant eminent domain authority to coal pipelines — Florida, Ohio and West Virginia. West Virginia's statute contains several restrictions that render its usefulness very doubtful.

Our experience in Florida might be particularly instructive on the difficulties that are encountered in obtaining workable state eminent domain authority for coal slurry pipelines. My company, Continental Resources Company, operates the Florida Gas Transmission pipeline that has supplied most of the natural gas to Florida for 20 years. We are headquartered in Florida. Our Florida utilities are switching to coal. The Florida utilities and state public service commission support the need for delivering steam coal to Florida at the lowest possible cost. Yet, we had to fight railroad opposition to state coal slurry pipeline legislation at two successive legislative sessions before the Florida coal slurry pipeline eminent domain statute was enacted. The result: Florida's statute does not become effective until all states along our route enact eminent domain authority for coal pipelines. Some of the recent experiences of pipeline proponents in attempting to obtain state eminent domain authority are set forth in Attachment 8.

As I indicated previously, similar difficulties led to the amendment of the Natural Gas Act in 1947 to grant Federal eminent domain authority to interstate natural gas pipelines; the enactment of the Cole Act in 1941 to grant Federal eminent domain authority to several interstate petroleum pipelines that now transport a large percentage of the petroleum products consumed in the Washington area; the grant of Federal eminent domain authority to the land grant railroads (Santa Fe, Union Pacific and Burlington Northern) in the 1860's; the grant of

Federal eminent domain authority to interstate bridge companies and to certain interstate electric transmission projects. Because the railroads refuse to admit that any railroad had Federal eminent domain authority, I would like to attach copies of some of the statutes that granted such authority to the railroads. (See Attachment 9).

The enactment of Federal eminent domain legislation in each of these instances allowed the development of these interstate energy and transportation facilities that have provided enormous benefits to our nation and literally have changed the face of our country. The adoption of this Federal eminent domain legislation will enable the nation to realize the substantial benefits of interstate coal pipeline systems.

IV. SUPPORT FOR S. 1844:

The Slurry Transport Association and my company strongly support the adoption of S. 1844, the Coal Distribution and Utilization Act of 1981. We also support the enactment of H.R. 4230, including particularly the version of that legislation that was recently ordered reported by the Surface Transportation Subcommittee of the House Public Works and Transportation Committee. Two aspects of S. 1844 deserve particular attention.

A. State Water Law Protections:

The most controversial aspect of interstate coal pipelines is the fact that most coal pipelines that are being considered today will use water as the medium of transportation. The allocation and use of water is an issue of great importance in every region of our nation. The issue is of particular importance, obviously, in those regions of our nation where water is relatively scarce, such as certain areas of the West and Southwest.

As proponents of coal pipelines, we strongly support Section 6 of S. 1844 (and Section 10 of H.R. 4230) which provides that decisions concerning the allocation and use of water shall be made pursuant to state substantive and procedural law. In addition, we support Section 4(c)(2) of S. 1844 and Section 10951(b) of H.R. 4230 which provides that Federal eminent domain authority may not be used to "acquire any right to take, use, or develop water". Stated succinctly, we believe that the states should have the right to make the water decisions regarding coal pipelines.

Those states possessing coal reserves are faced with a fundamental decision: whether or not to develop those reserves. If the decision is in favor of development, and I know of no state that has determined not to develop coal, then the state must determine what to do with the coal that is mined. At that point, the state has at least four alternatives available to it.

First, the state can export the coal via unit train. Unit trains are not water intensive, but unit trains do create additional problems of congestion and safety. Second, the state can support the development of facilities to liquefy or gasify the coal in the state and then export the liquid or gaseous product by train or pipeline. However, liquefying coal requires the same amount of water as does a coal slurry pipeline and gasifying coal requires twice as much water as a coal slurry pipeline. (See Attachment 10). In addition, these large synfuel facilities may create other significant socio-economic impacts. Third, the state could support the development of mine-mouth electric generating facilities. But such facilities require up to five times as much water as do coal slurry pipelines. (See Attachment 10). Mine mouth electric generating facilities also create substantial socio-economic impacts and necessitate the construction of overhead electric transmission lines that some people find to be both obtrusive and inconvenient. Finally, the state could opt to support the development of coal pipelines that are constructed underground and may be less water intensive than several of the alternatives.

We are not asking the Federal governmenw to override the water decisions of the states. Most pipelines cannot be built without water. A decision on water usually determines whether a pipeline will be built. Pipeline companies understand that they will be required to carry the burden of demonstrating the existence both physically and legally of adequate water supplies. They will have to prove, either through new appropriations of water or through purchase and transfer of existing water rights, that pipeline uses of water can be made without injuring the rights or impairing the ability of state water agencies to plan and regulate the use of their critically important water supplies.

We are perfectly happy to make our case to the states and live with their decision. However, we believe the states should have assurances that the water determination is theirs to make. Therefore, we support all the water provisions of S. 1844 which: (1) clarify that Federal eminent domain authority may not be used to acquire water rights; (2) clarify that nothing in S. 1844 shall be construed to override or modify state water law or any provision of an interstate water compact; (3) provide that all water allocated to an interstate coal pipeline that is determined to be in the national interest must be allocated pursuant to state substantive and procedural law; and (4) provide that those terms and conditions that a state includes in a water permit shall be enforceable despite the fact that the water moves in interstate commerce.

B. Miscellaneous:

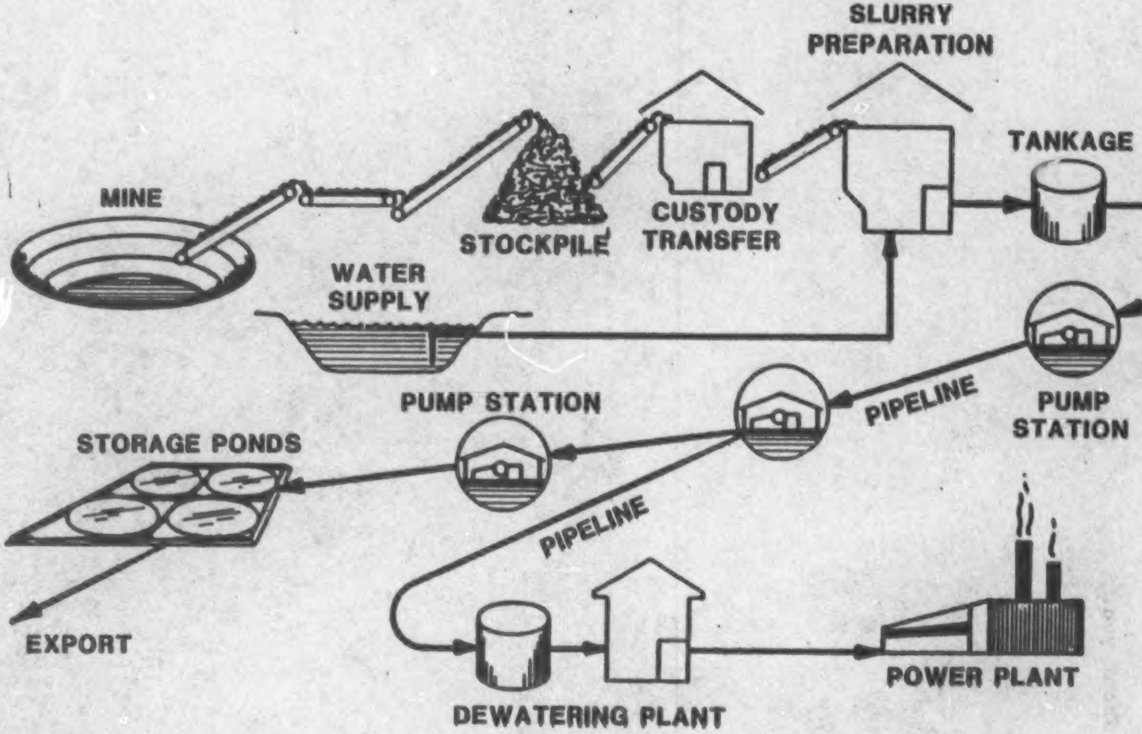
The Slurry Transport Association recommends that one section of S. 1844 be deleted. Section 5 of S. 1844 provides that rights-of-way across Federal lands for coal pipelines shall be obtained pursuant to the Mineral Lands Leasing Act of 1920. However, the Federal Land Policy Management Act of 1976 provides a mechanism pursuant to which rights-of-way across Federal lands may be obtained by coal pipelines. In January, 1981, the Department of the Interior granted the Allen-Warner Valley Energy System preliminary approval for coal pipeline rights-of-way pursuant to the Federal Land Policy Management Act. The ETSI project is presently negotiating with the Department of the Interior to obtain rights-of-way across certain Federal lands pursuant to this authority. Therefore, because present law provides an adequate mechanism for determining whether rights-of-way across Federal lands should be granted for coal pipelines, Section 5 of S. 1844 should be deleted.

V. CONCLUSION:

Mr. Chairman, the case for interstate coal pipelines is compelling. Interstate coal pipelines will provide significant energy and economic benefits for the nation. But these interstate systems simply will not be developed unless workable Federal eminent domain legislation, such as S. 1844, is enacted. We encourage the Committee, Mr. Chairman, to report this legislation expeditiously in order that these projects may begin to be developed.

Thank you.

SLURRY PIPELINE SYSTEM


SLURRY PREPARATION
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WATER SUPPLY
PUMP STATION
PIPELINE
PUMP STATION
STORAGE PONDS
PIPELINE
EXPORT
DEWATERING PLANT
POWER PLANT

Attachment 2

1. Northwest Integrated Coal Energy System (NICES):

The Northwest Integrated Coal Energy System proposes to build a slurry pipeline to transport sub-bituminous coal from Wyoming to Oregon. In Oregon, the coal will be used for electric power generation and for export. No water rights have been obtained for this proposed pipeline, which is in the earliest stages of development.

2. Energy Transportation System, Inc. (ETSI Pipeline Project):

In 1973, Energy Trnasportation Systems Incorporated (ETSI) was formed to construct a 1,828 mile coal slurry pipeline system to move 25 to 35 million tons of coal annually from mines near Gillette, Wyoming to power plant customers in Oklahoma, Arkansas and Louisiana. The project will require 20,500 acre-feet of water per year, which will be obtained from Lake Oahe in South Dakota. ETSI has obtained approximately 75% of its necessary rights-of-way and plans to begin construction in 1983.

3. Allen-Warner Valley Energy System:

Nevada Power is proposing to construct a power plant and pipeline system that will transport coal from Utah to Nevada to supply two new power plants. In January, 1981, the

U.S. Department of the Interior gave preliminary approval for the Federal rights-of-way that are required for the slurry pipeline and for the proposed surface mines that would supply the slurry pipeline. Nevada Power proposes to move 11.6 million tons of coal annually over 183 miles of isolated, high dry plateau. The water use rate will be between 5,400 and 7,800 acre-feet per year and will be obtained from the Navajo Indians.

4. The San Marco Pipeline:

A joint venture of Houston Natural Gas Corporation and Rio Grande Industries, the holding company of the Denver and Rio Grande Railroad, proposes to build a 900 mile pipeline to move approximately 10 million tons of coal annually from southern Colorado to the area near Houston, Texas. Construction of the system will commence shortly after water supplies are secured and the Colorado water court determines that the use of the water in the pipeline is a beneficial use. Texas, through which most of the line will be built, provides the right of eminent domain to coal slurry pipelines.

The San Marco pipeline has developed a source of water in the San Luis Valley, Colorado. Approximately 15,000 acre- feet per year from an underground system, with an estimated refill of 50,000 acre-feet per year, will be utilized by the pipeline. The San Marco has offered to trade this water to Colorado agricultural owners for their hightly mineralized water that is presently unsuitable for agricultural purposes.

5. Coalstream Pipeline Project:

Coalstream Pipeline Project, a subsidiary of Continental Resources Company, proposes to build a major eastern coal pipeline system, drawing coal from Illinois, eastern and western Kentucky, Ohio and West Virginia. This 1,500 mile system will move between 25 to 55 million tons of coal annually to electric utilities in Georgia and Florida and, possibly, to export facilities on the Atlantic and Gulf coasts. Right-of-way acquisition is the major roadblock to construction of this system. Continental Resources has considered obtaining water for the system from the Ohio River, the tributaries of the Ohio River and municipal sewage which has been subjected to primary treatment, but will not negotiate for water until Federal eminent domain legislation has been enacted.

6. Texas Eastern Pipeline Project:

Texas Eastern proposes to construct a 1,260 mile pipeline to move 22 million tons of coal annually from the Powder River Basin to Houston. This project of the Texas Eastern Corporation of Houston has been delayed primarily because the governor of Wyoming has declined to certify the availability of the water for the project within the time established by the legislature. This project may be consolidated into an ETSI II project.

7. Pacific Bulk Transportation Project:

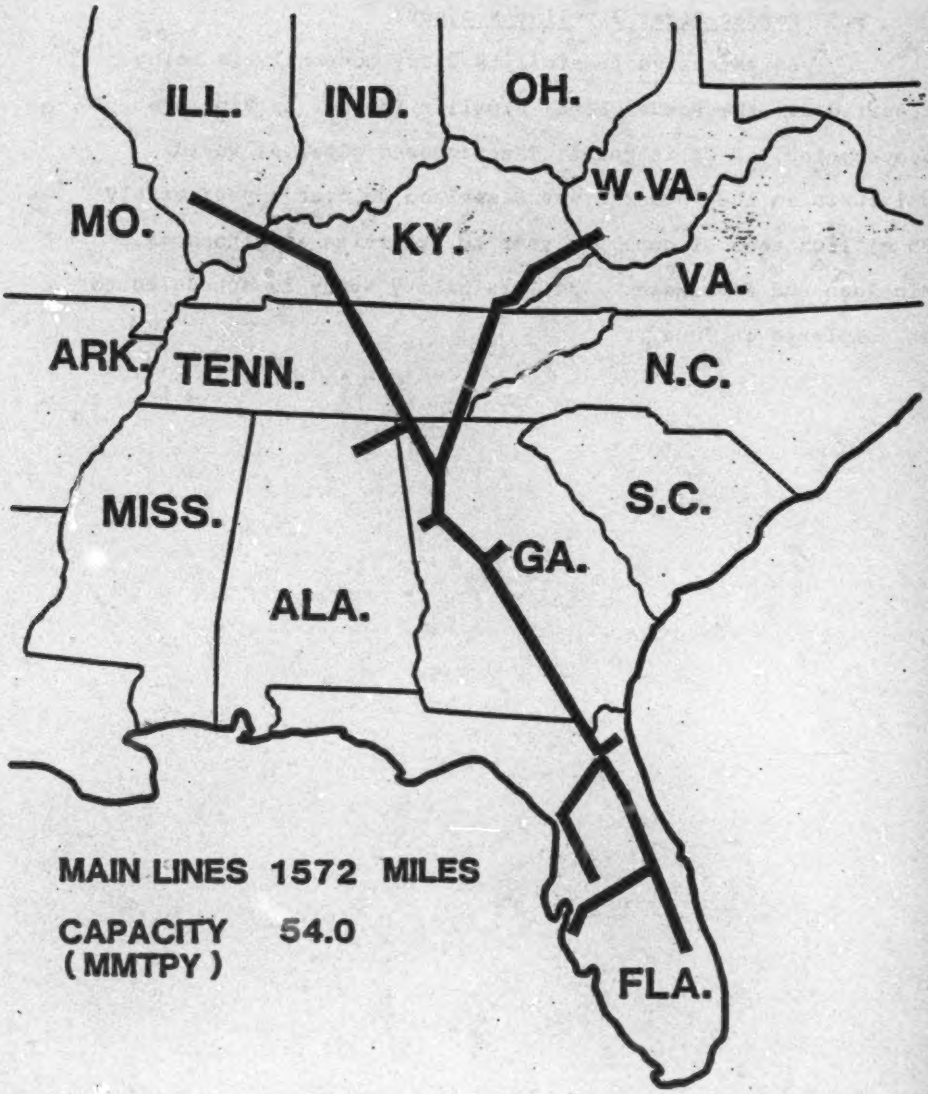
Boeing Engineering and Construction Company proposes to build a pipeline system that would deliver 10 million tons of coal annually 650 miles from central Utah to Oxnard, California, for export to Japan, South Korea, and Taiwan. Boeing proposes to construct a major coal export facility and to build a fleet of 350,000 ton coal "tankers" to transport the slurried coal. No water has been obtained for this proposed project and the project does not intend to obtain water rights until either Federal or state eminent domain legislation has been adopted.

8. Virginia Electric & Power Company (VEPCO) Project:

VEPCO is investigating the feasibility of constructing a slurry pipeline to serve its coal-fired generating stations in Virginia, and, perhaps, to deliver coal for export. The system would deliver approximately 10 million tons of coal annually from extreme western Virginia along a 350 mile route to the Norfolk area. VEPCO is considering the slurry pipeline alternative because the cost of transporting coal from western Virginia to the Tidewater area by rail is comparable to the cost of moving coal from Wyoming to Texas by rail. However, the Commonwealth of Virginia is the only state with a statute that specifically denies the right of eminent domain to coal slurry pipelines.

9. Powder River Pipeline Project:

An extensive feasibility study currently is being prepared for the Powder River Pipeline Project by Pipeline Systems Inc. of California. The proposed pipeline would originate in the Powder River Basin and deliver approximately 35 million tons of coal per year to utilities in Minnesota, Michigan and Wisconsin. The feasibility study is scheduled to be completed in June.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ARK.
TENN.
N.C.
MISS.
S.C.
GA.
ALA.
FLA.

MAIN LINES 1572 MILES

CAPACITY 54.0
(MMTPY)

THE IMPACT OF PROPOSED COAL SLURRY PIPELINES ON REGIONAL RAIL COAL TRAFFIC

by David L. Anderson and Ruth S. Carey[1]

Many U.S. railroads are counting on coal traffic to be a major source of freight revenues during the next quarter century. As a result, they fear that the development of coal slurry pipeline systems may result in significantly lower growth rates for rail coal traffic. Western railroads, in particular, are likely to be heavily impacted, since the majority of potential coal slurry lines originate in western coal fields.

The objective of this special study is to assess the effects of building one or all of the currently proposed coal slurry pipelines on Class I Railroads originating coal tonnage by region through 2003. The analysis assumes a "worst-case" scenario, i.e., that all tonnage transferred to coal slurry lines is from Class I Railroad traffic. Since the vast majority (six out of seven) of the potential slurry lines are slated to originate in the West, and since other modes are not involved in long-haul coal operations out of western coal fields, such an assumption is generally valid.

The analysis combines the forecasts of three DRI Industry Services: Energy, Coal, and Transportation. The DRI Energy Model provides forecasts of total coal demands by U.S. Census Regions. The DRI/Zimmerman Coal Model, using inputs from the Energy and Transportation Models, develops coal production forecasts as well as interregional coal flows. Finally, the Transportation Model translates total coal supply and demand by region into Class I Railroad regional coal traffic forecasts. Both end-market activity (domestic and export) and modal competition are examined in the rail coal traffic forecasts.

The study follows four successive steps in assessing the impact of coal slurries on the railroads. First, the DRI regional coal use forecasts were analyzed to determine relative growth patterns in coal demand by region. Second, coal tonnage originated for Class I Railroads by region was forecast in order that the impact of changing coal demands on the railroads could be assessed. Third, the impact of each individual coal slurry pipeline on the regional railroad tonnage was determined by subtracting the pipeline's annual estimated tonnage figure from the rail coal tonnage forecast by region. Finally, the cumulative effect of all of the proposed slurry pipeline operations on the railroads' tonnage originated was calculated and relative regional impacts determined.

COAL PRODUCTION AND USE FORECASTS

Coal movements in the past have been generally short haul (200 miles on average), due partly to the abundant regional supplies and the economics of alternative fuel sources. Because of the more stringent environmental regulations for coal burning plants, however, coal movements have been experiencing a shift away from purely intra-regional movement. Low-sulfur western coal has become more attractive to southern and midwestern utility plants which must meet the Environmental Protection Agency's new source performance standards. In addition, coal is seen as the energy source of the future for many utilities, so that demand is forecast to increase in all regions, including the West (historically a small consumer of coal).

Table 1 details the July 1979 DRI Energy Model forecasts (ECONTROL0779) of total coal demand by region. Average compound annual growth rates for U.S. coal consumption are 4.9% for 1977 to 1980, 4.9% for 1980 to 1985, 5.4% for 1985 to 1990, 5.2% from 1990 to 1995, 3.4% from 1995 to 2000 and 3.3% for 2000 to 2003. In all, total U.S. coal demand (including exports) more than triples by the year 2003. Fastest growing regions for coal use include the West South Central (Oklahoma, Texas, Arkansas, Louisiana) -- 12% per year in the 1980s and 6.5% per year in the 1990s, Pacific (Oregon, Washington, California) -- 19% per year in the 1980s and 14% per year in the 1990s, and Mountain 3 (Nevada, Arizona) -- 2.2% per year in the 1980s and 6% per year for the 1990s.

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TABLE 1: Total Coal Demand by Region
(Millions of Tons, including Lignite)

	Years										
	1977	1978	1979	1980	1981	1982	1985	1990	1995	2000	2003
New England	1.00	0.89	1.46	1.73	2.04	2.52	3.47	6.81	9.20	12.41	14.61
Middle Atlantic	76.36	67.75	74.70	78.94	82.59	86.70	100.28	120.10	145.15	164.31	178.32
South Atlantic	107.55	99.82	106.37	110.42	112.36	121.19	143.85	180.97	228.13	265.50	288.45
East North Central	202.87	192.11	218.18	223.48	225.45	236.78	264.87	325.23	379.87	427.47	458.20
West North Central	65.66	70.05	78.78	84.82	86.25	95.63	118.06	160.26	191.22	221.86	240.97
East South Central 1	51.19	50.48	57.66	56.87	51.50	52.03	52.22	63.60	81.60	104.86	121.83
East South Central 2	26.86	23.42	26.73	28.55	27.44	26.98	32.01	37.75	46.37	53.10	56.42
West South Central	24.28	32.68	51.08	54.60	62.19	72.03	87.02	117.24	173.86	220.23	247.92
Mountain 1	8.89	8.83	10.45	11.83	11.38	12.69	15.49	19.75	21.38	22.65	23.33
Mountain 2	32.92	32.90	37.92	41.15	42.75	48.04	59.36	81.15	101.01	114.77	123.82
Mountain 3	14.40	[illegible]	13.80	15.02	15.01	17.02	18.09	19.88	26.79	35.77	42.00
Pacific	8.99	8.19	7.55	8.35	8.77	9.26	14.91	27.46	61.67	94.61	115.33
TOTAL, ALL REGIONS	620.95	599.21	684.68	715.77	727.75	780.88	909.64	1,160.20	1,466.25	1,737.53	1,911.22

	Average Percent Growth					
	77 TO 80	80 TO 85	85 TO 90	90 TO 95	95 TO 2000	2000 TO 2003
New England	19.9	15.7	15.1	7.2	6.2	6.1
Middle Atlantic	-0.2	5.0	4.0	4.1	2.5	2.8
South Atlantic	1.8	5.2	5.2	5.0	3.1	2.8
East North Central	2.8	3.3	4.3	3.6	2.2	2.4
West North Central	9.5	7.0	6.8	4.1	2.9	2.8
East South Central 1	3.3	-1.6	3.6	5.7	5.0	5.2
East South Central 2	1.3	3.2	4.9	5.0	2.7	2.2
West South Central	30.7	9.4	6.3	8.8	4.8	4.2
Mountain 1	10.2	6.9	6.1	2.0	1.2	1.0
Mountain 2	11.8	7.8	7.4	4.8	2.7	2.5
Mountain 3	6.2	4.7	1.7	6.9	5.9	5.6
Pacific	3.6	12.5	17.3	16.7	9.0	7.2
TOTAL, ALL REGIONS	4.9	4.9	5.4	5.2	3.4	3.3

TABLE 2: Percent Change for Region-to-Region Coal Flows 1977-2003

	Supply Region						
Demand Region	North Appalachia	South Appalachia	Midwest	Montana-Wyoming	Colorado-Utah	Arizona-New Mexico	Total
NENG	1600%	NC	NC	NC	NC	NC	1600%
MATL	151%	33%	NC	NC	NC	NC	136%
SATL	220%	37%	1210%	NC	NC	NC	143%
ENC	-56%	-1%	52%	1173%	-87%	NC	151%
WNC	100%	NC	-84%	671%	-80%	NC	363%
ESC1	-80%	-80%	300%	NC	NC	NC	149%
ESC2	-100%	-33%	577%	NC	NC	NC	150%
WSC1	NC	NC	NC	-84%	NC	NM	1115%
WSC2	NC	74%	NC	-83%	1157%	1875%	533%
MTN1	NC	NC	NC	NC	NC	217%	217%
MTN2	NC	NC	NC	332%	128%	NC	265%
MTN3	NC	NC	NC	NC	-89%	321%	299%
PAC	NC	NC	NC	NC	2562%	NC	2562%
Total	73%	10%	218%	726%	473%	461%	193%

NC = No Change
NM = Not Meaningful

Source: DRI Coal Model - Special Simulation with DRI Transportation Service Assumptions.

Table 2 illustrates the resultant DRI/Zimmerman Coal Model forecasts for increases in total region-to-region coal flows from 1977 to the year 2003. In terms of supply regions, the three western coal fields experience the most dramatic increase in production in the next 25 years. Since substantial amounts (over 50%) of western coal production are originated by railroads, large traffic increases are likely, assuming other-mode (slurry) competition is not present. Although the percentage changes do not tell the whole story, the west-to-south coal traffic corridors (in which coal slurry lines are proposed) show some of the most substantial traffic increases in the U.S. over the period.

Table 3 examines the growth rates for coal supply by region through 2003. Both the Midwest and western coal supply regions are the likely candidates for new mode (slurry) competition to the established coal transportation patterns. The majority of proposed coal slurry pipelines are in the West, with one line — the Florida Gas Pipeline — scheduled to operate partly out of midwestern coal fields and partly out of Southern Appalachian fields.

CLASS I RAIL REGIONAL COAL TRAFFIC FORECASTS

The DRI Class I Railroad coal traffic model produces estimates of coal tonnage originated in the East, South, and West ICC rate districts. Table 4 summarizes the regional rail coal traffic forecasts through the year 2003, based on the ECONTROL0779 DRI Energy Model forecasts of regional U.S. coal demands. The CONTROL0779 coal tonnage forecast was arrived at by looking historically at the major demand regions served by railroads originating traffic in the three major rail regions: East (Northern Appalachia and Midwest), South (Southern Appalachia), and West (Montana - Wyoming, Colorado - Utah, and Arizona - New Mexico), as well as export (Canada and other) markets. In addition, modal competitive factors were included in the model when relevant.

Rail tons originated are expected to increase from 411 million tons in 1977 to 1.156 billion tons in 2003, an increase of 181%. Eastern rail tons will increase 136% over that period while southern tons originated will increase at the

TABLE 3: Coal Supply by Region
(Millions of Tons)

Region	1977	2003	Average Percent Growth 1977-2003
North Appalachia	174.8	302.3	2.13
South Appalachia	221.0	244.1	0.38
Midwest	136.0	432.3	4.55
Montana-Wyoming	85.2	703.4	8.46
Colorado-Utah	22.6	129.6	6.95
Arizona-New Mexico	22.9	128.5	6.86
Total	662.5	1940.5	4.22

TABLE 6: Regional U. S. Coal Traffic
Class I Railroads--Proposed Coal Slurry Pipelines
Bituminous Coal & Lignite

	Years 1977	1978	1979	1980	1981	1982	1985	1990	1995	2000	2003
Total U.S.											
Rail Tons	411.17	381.21	441.91	468.41	490.97	521.21	599.32	746.10	912.57	1,060.43	1,156.07
Rail Tons, less Slurry	411.17	381.21	441.91	468.41	490.97	521.21	580.82	675.10	803.97	924.83	1,020.47
East											
Rail Tons	203.89	156.10	210.07	222.30	232.00	243.77	275.61	335.96	395.42	446.50	488.72
% of Total Rail Tons	0.50	0.41	0.48	0.47	0.47	0.47	0.46	0.45	0.43	0.42	0.42
Rail Tons, less Florida Gas Pipeline	203.89	156.10	210.07	222.30	232.00	243.77	275.61	323.96	377.42	422.50	464.72
South											
Rail Tons	104.09	103.29	100.96	109.97	118.94	125.12	144.63	177.39	220.91	261.42	287.45
% of Total Rail Tons	0.25	0.27	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.25	0.25
Rail Tons, less Florida Gas Pipeline	104.09	103.29	100.96	109.97	118.94	125.12	144.63	169.39	208.91	245.42	271.45
West											
Rail Tons	103.19	121.82	130.88	136.14	140.03	152.32	179.08	232.75	296.24	352.51	377.90
% of Total Rail Tons	0.25	0.32	0.30	0.29	0.29	0.29	0.30	0.31	0.32	0.33	0.34
Rail Tons, less Coal Slurry Lines	103.19	121.82	130.88	136.14	140.03	152.32	160.58	181.75	217.64	256.91	282.30
Proposed Coal Slurry Pipelines											
ETSI-Wyoming to Miss.	0.00	0.00	0.00	0.00	0.00	0.00	12.50	12.50	20.00	25.00	25.00
TEXAS-Montana to Houston	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00	18.00	22.00	22.00
HOUSTON-Colorado to Texas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	11.00	15.00	15.00
NEVADA-Utah to Nevada	0.00	0.00	0.00	0.00	0.00	0.00	6.00	9.00	11.60	11.60	11.60
GULF-Wyoming to Oregon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	8.00	10.00	10.00
BOEING-Utah to California	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	10.00	12.00	12.00
All West to South Lines	0.00	0.00	0.00	0.00	0.00	0.00	12.50	31.00	49.00	62.00	62.00
All West to West Lines	0.00	0.00	0.00	0.00	0.00	0.00	6.00	20.00	29.60	33.60	33.60
FLORIDA GAS-Midwest to Florida	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	30.00	40.00	40.00
Total, all Proposed Lines	0.00	0.00	0.00	0.00 E	0.00	0.00	18.50	71.00	108.60	135.60	135.60

	Average Percent Growth 77 TO 80	80 TO 85	85 TO 90	90 TO 95	95 TO 2000	2000 TO 2003
Total U.S.						
Rail Tons	4.0	5.2	4.8	4.5	2.9	3.0
Rail Tons, less Slurry	4.0	4.7	3.2	3.1	2.5	3.3
East						
Rail Tons	3.4	4.8	4.2	3.7	2.3	2.5
% of Total Rail Tons	0.3	-0.6	-0.5	-0.8	-0.6	-0.4
Rail Tons, less Florida Gas Pipeline	3.4	4.6	3.6	2.9	1.9	2.7
South						
Rail Tons	-0.2	6.3	4.7	4.8	3.4	3.3
% of Total Rail Tons	-3.5	1.1	-0.1	0.4	0.4	0.3
Rail Tons, less Florida Gas Pipeline	-0.2	6.3	3.9	3.9	3.0	3.5
West						
Rail Tons	8.7	5.4	5.7	5.3	3.4	3.3
% of Total Rail Tons	5.5	0.2	0.9	0.8	0.5	0.3
Rail Tons, less Coal Slurry Lines	8.7	3.5	2.1	2.8	3.2	4.1
Proposed Coal Slurry Pipelines						
ETSI-Wyoming to Miss.	NC	NC	NC	10.0	4.2	0.0
TEXAS-Montana to Houston	NC	NC	NC	10.4	3.7	0.0
HOUSTON-Colorado to Texas	NC	NC	NC	NC	13.8	9.1
NEVADA-Utah to Nevada	NC	NC	8.3	4.8	0.0	0.0
GULF-Wyoming to Oregon	NC	NC	NC	NC	4.2	0.0
BOEING-Utah to California	NC	NC	NC	NC	3.3	0.0
All West to South Lines	NC	NC	NC	13.7	5.4	1.7
All West to West Lines	NC	NC	28.7	27.4	2.3	0.0
FLORIDA GAS-Midwest to Florida	NC	NC	NC	NC	13.9	0.0
Total, all Proposed Lines	NC	NC	69.7	27.2	6.2	0.0

faster rate of 176%. The western increase in tons originated is expected to be 276% over the 25 year period. These figures are consistent with the Coal Model forecast which shows an increase in total coal flows of 193% from 1977 to 2003. Railroads will continue to lose some of their coal market share, however, originating 59.6% of the coal in 2003 as compared with 62% in 1977. The increased use of lignite coal in mine-mouth utility plants, especially in Texas, through the end of the century is a major factor behind the loss in rail market share, rather than competition from other modes in long-haul operations. Broken down by region, the eastern railroads originated 28.6% of total coal produced in 1977 while the southern and western railroads each originated 16.5%. Significantly, the western railroads will be the only group to increase their market share of originating coal tonnage in the 25 year period.

Western railroads will be most affected by these increases in regional coal demand. First, major growth in coal use (during the next 25 years) occurs in those demand regions served by western carriers. Second, substantial capacity problems exist in the West because many rail lines were originally constructed to serve agricultural traffic. As a result, upgrading western rail lines to handle the large increases in coal traffic will require significant new investments. Finally, the proposed coal slurry pipelines (with one exception) originate in western coal fields. These coal slurry pipelines are currently promoted both as alternative modal investments for the new coal traffic and as competition for existing western coal movements that will hold down rail rate increases in the future.

COAL SLURRY IMPACTS

There are presently seven coal slurry pipeline proposals which the Coal Slurry Transport Association considers active or semi-active. They are: The Nevada Power (Alton) Pipeline, to run from Utah to Nevada, 153 miles, with a capacity of 11.6 million tons per year and a completion date of 1983; the Houston Natural Gas (San Marco Co.) Pipeline, to run 900 miles from Colorado to Texas with a capacity of 15 million tons and a start-up date of 1990; the Energy Transportation Systems, Inc. (ETSI) Pipeline, to run 1,355 miles from Wyoming to Penton, Mississippi, with a capacity of 25 million tons per year and a completion date of 1985; Gulf Interstate Pipeline, 1,100 miles long from Wyoming to Oregon, with a capacity of 10 million tons per year and a start-up date of no sooner than 1990; Texas Eastern Pipeline, 1,260 miles from Montana to Houston, capacity of 22 million tons per year and an estimated completion date of 1988; Boeing Pipeline, 645 miles from Utah to California, capacity of 12 million tons per year and a completion date of 1990; and the Florida Gas Pipeline, to run 1,500 miles from Southern Illinois and Indiana and East Kentucky and West Virginia, to join in Tennessee and run to Georgia and Florida, capacity of up to 40 million tons and a completion date of 1990. The annual forecast of coal flows for the above proposed coal slurry pipelines is presented in Table 4.

In order to determine the impacts of coal slurry operations on Class I Railroad regional rail coal traffic through the year 2003, the DRI Transportation Service reduced rail tons originated by region by forecast year to reflect the completion dates of the various proposed slurries. Table 5 summarizes the alternative scenarios analyzed. Each coal slurry was incrementally introduced into the region as an alternative to rail movement of coal; the slurries' cumulative impact on the region was also evaluated.

Table 6 depicts, in percentage terms, the effect each pipeline will likely have on regional Class I Railroad coal traffic. In addition, the impacts of coal slurries in major coal traffic corridors (West-to-South, West-to-West) are examined. The effects of the slurries do not begin to take affect until 1983, when the first pipeline is assumed to begin operation. Thus, in 1983 the Nevada Power Pipeline is expected to decrease western railroad carloadings by 3.7% and total originations, all regions, by 1.1%. The figure jumps to 21.9% in 1990 for western originations with all six pipelines in operation. Total originations for the railroads will decrease by 9.5% in 1990 due to the operation of all seven slurries. In 2003 the total effect of the coal slurries is expected to be a 5.0% decrease for eastern originations, a 5.6% decrease of southern originations and a 24.7% decrease in western originations (by far the largest impact of the slurries). The total impact on originations, all regions, will be an 11.7% decrease in Class I Railroad coal tonnage in 2003.

TABLE 5: Coal Slurry Study Assumptions

Pipeline	Description
Baseline	No coal slurry pipelines
ETSI	ETSI pipeline begins operations in 1985 at half capacity
TEXAS	Texas Eastern pipeline begins operations in 1988 at half capacity
HOUSTON	Houston Natural Gas pipeline begins operations in 1990 at half capacity
NEVADA	Nevada Power pipeline begins operations in 1983 at half capacity
GULF	Gulf Interstate pipeline begins operations in 1990 at half capacity
BOEING	Boeing pipeline begins operations in 1990 at half capacity
All West-to-South Lines	ETSI, Texas, and Houston pipelines (West to South) operating concurrently with respective startup dates
All West-to-West Lines	Nevada, Gulf, and Boeing pipelines (West to West) operating concurrently with respective startup dates
All Western Lines	ETSI, Texas, Houston, Nevada, Gulf, and Boeing pipelines operating concurrently with respective startup dates
Florida Gas	Florida Gas pipeline begins operations in 1990
Total All Slurry Lines	ETSI, Texas, Houston, Nevada, Gulf, Boeing, and Florida pipelines operating concurrently with respective startup dates

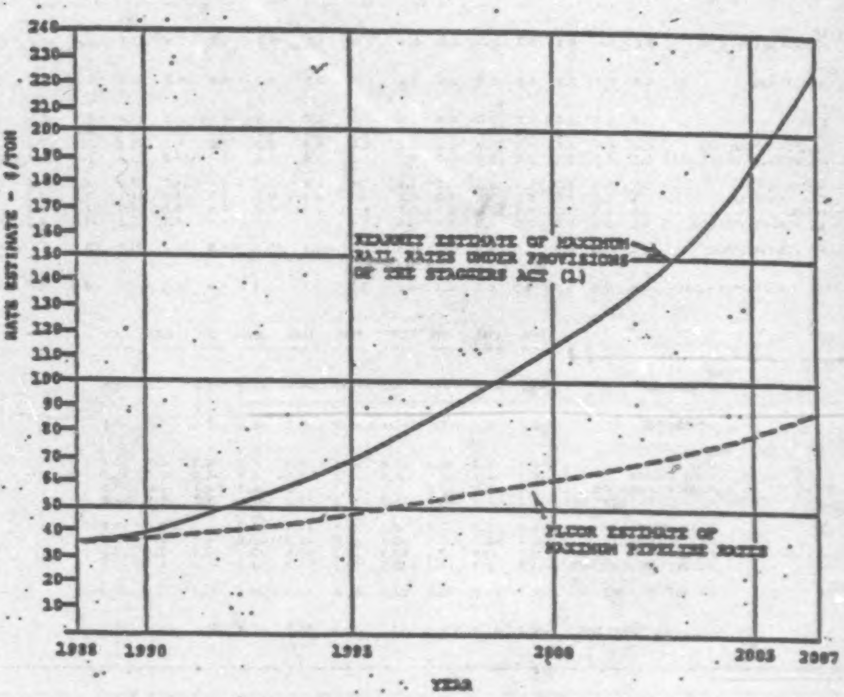
TABLE 6: Changes in Rail Tons Originated Due to Coal Slurry Pipelines by Region (Percent Change)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
EAST																
FLORIDA GAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.8	-3.6	-3.2	-3.2
SOUTH																
FLORIDA GAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.3	-4.2	-4.0	-3.9
WEST																
ETSI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-6.7	-6.5	-6.1	-5.8	-5.4	-8.0	-7.5	-7.2
TEXAS EASTERN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.2	-5.1	-4.7	-4.4	-4.1	-4.5
HOUSTON NATURAL GAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.2	-3.0	-2.8	-2.7
ALL WEST-TO-SOUTH LINES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.0	-6.7	-6.5	-11.4	-10.8	-13.2	-15.3	-14.4	-16.4
NEVADA POWER	0.0	0.0	0.0	0.0	0.0	-1.7	-1.6	-2.4	-4.8	-4.7	-4.4	-4.1	-3.9	-4.7	-4.3	-4.2
GULF INTERSTATE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.1	-2.0	-1.9	-1.9
BOEING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.6	-2.4	-2.2	-2.2
ALL WEST-TO-WEST LINES	0.0	0.0	0.0	0.0	0.0	-1.7	-1.6	-2.4	-4.8	-4.7	-4.4	-4.1	-8.6	-9.1	-8.5	-8.2
ALL WESTERN LINES	0.0	0.0	0.0	0.0	0.0	-1.7	-1.6	-10.3	-11.5	-11.1	-15.8	-15.0	21.9	24.6	22.9	25.
TOTAL - ALL SLURRY LINES	0.0	0.0	0.0	0.0	0.0	-1.1	-1.1	-3.1	-3.5	-3.4	-4.8	-4.4	-9.3	-10.2	-10.5	-10.5

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
EAST										
FLORIDA GAS	-2.1	-4.8	-4.0	-4.3	-4.2	-5.5	-5.4	-5.2	-5.1	-5.0
SOUTH										
FLORIDA GAS	-3.7	-6.4	-6.2	-5.1	-4.9	-6.3	-6.1	-5.9	-5.7	-6.6
WEST										
ETSI	-6.9	-6.8	-8.1	-7.8	-7.6	-7.3	-7.1	-6.9	-6.7	-6.6
TEXAS EASTERN	-6.3	-6.1	-5.9	-5.6	-6.7	-6.5	-6.2	-6.0	-5.9	-5.7
HOUSTON NATURAL GAS	-2.6	-3.7	-3.3	-3.5	-3.3	-3.2	-4.3	-4.1	-4.0	-3.9
ALL WEST-TO-SOUTH LINES	-15.8	-16.5	-17.6	-16.9	-17.6	-17.0	-17.6	-17.0	-16.5	-16.0
NEVADA POWER	-4.0	-3.9	-3.8	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1	-3.0
GULF INTERSTATE	-2.8	-2.7	-2.6	-3.1	-3.0	-2.9	-2.8	-2.7	-2.7	-2.6
BOEING	-3.5	-3.4	-3.3	-3.8	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1
ALL WEST-TO-WEST LINES	-10.3	-10.0	-9.6	-10.5	-10.2	-9.9	-9.5	-9.2	-8.9	-8.7
ALL WESTERN LINES	26.1	26.5	27.2	27.5	27.8	26.9	27.1	26.3	25.4	24.7
TOTAL - ALL SLURRY LINES	-10.7	-11.9	-12.0	-12.1	-12.2	-12.8	-12.8	-12.4	-12.1	-11.7

In summary, the western railroads will experience a substantial reduction in new coal traffic growth in the next 25 years if all proposed coal slurry pipelines are contructed. Instead of originating 383 million tons of coal in 2003, western railroads could have total coal tonnage loadings reduced by 25% to 292 million tons. The analysis is a "worst-case" scenario, assuming that all proposed slurry lines will be built and th they will be completed within the curre construction timetable as well as operate at f capacity by the end of the century. In th context, the estimated rail traffic losses region to coal slurry pipelines should considered as the maximum possible traff reduction.

COMPARISON OF PROJECTED RAILROAD AND PIPELINE RATES FOR TRANSPORTING COAL TO THE SOUTHEAST UNDER MOST LIKELY INFLATION



NOTE: (1) WHICH ARE NOT SUBJECT
TO ICC JURISDICTION IN
THE RATEMAKING PROCESS.

Source: Comparison of Projected Maximum Rail and Coal Slurry Pipeline Rates for Transporting Coal to Selected Southeast Utilities. Executive Summary, A.T. Kearney, Inc., May 1981, p. 2

TABLE 1

World Steam Coal Demand
By Selected Country
1979 - 2000
(millions of short tons)

Europe (six largest)	1979	1990	2000	Average annual growth rate 1979-2000
Belgium-Luxembourg	5.8	17.3	30.5	8
Denmark	7.6	16.1	21.9	5
France	21.0	19.0	30.5	2
Italy	2.1	39.1	50.0	16
Netherlands	2.6	15.1	35.2	13
West Germany	7.0	15.6	39.2	9
Pacific (three largest)				
Japan	2.7	48.3	108.7	18
Korea	5.9	16.1	50.6	11
Taiwan	5.3	3.5	41.4	10

Source: Midrange estimates of ICET study, p. 42

TABLE 2

World Steam Coal Supply
(millions of short tons)

Country	1979	1990	2000
U.S.	14.1	64	197
South Africa	n/a	65	90
Australia	n/a	37	97
Poland	n/a	55	55
Colombia	n/a	17	30
China	n/a	10	30
Canada	n/a	7	14
U.S.S.R.	n/a	3	7
TOTAL	77	258	520
U.S. Share (%)	18	25	38

Source: Midrange estimates of ICET study, projections, pp. 6-18

TABLE 3
Comparative Delivered Cost of Coal
(1980 $/MMBtu)

European Market

Source	Mine-Mouth Cost	Transportation Costs Inland	 Ocean	Total Cost
U.S.	1.65	.35	.35	2.35
Australia	1.00	.15	1.05	2.20
South Africa	1.00	.30	.65	1.95

Pacific Rim Market

Source	Mine-Mouth Cost	Transportation Costs Inland	 Ocean	Total Cost
U.S.	1.10	.70	.45	2.25
Australia	1.00	.15	.45	1.60
South Africa	1.00	.30	.65	1.95
Canada	1.35	.50	.40	2.25

Source: ICET Study, p. 99.

MEMORANDUM

Re: Need for Federal Eminent Domain Authority for Interstate Gas Pipelines

The history of interstate natural gas pipelines demonstrates the necessity and propriety of granting federal eminent domain to interstate coal pipelines. The Natural Gas Act of 1938, 15 U.S.C. § 717, *et seq.*, initially did not grant the right of eminent domain to natural gas pipelines certificated under that act. However, it soon became apparent that state eminent domain would not be available for acquiring rights-of-way for interstate pipelines in states not served by those pipelines. This problem was described in detail in Senate Report No. 429 (80th Cong., 1st Sess.) which accompanied S. 1028, the 1947 amendment to the Natural Gas Act granting interstate natural gas pipelines the federal right of eminent domain.

> In some States the statutes are broad enough to grant the right of eminent domain to interstate natural gas companies which are regulated under the Natural Gas Act, but in many of the States . . ., the constitutions and statutes of such States, which confer the right of eminent domain, provide that property may be taken for public use. The term 'public use' has been construed by the courts to mean for the use of the public of the particular State conferring the right of eminent domain.
>
> In *Shedd et al. v. Northern Indiana Public Service Co.* (188 N.E. 322, 90 A.L.R. 1020), the Supreme Court of Indiana said:
>
> > The State of Indiana has no power of eminent domain for uses constituting interstate commerce over which the United States alone has the sovereign right of control and regulation . . . . The test must be, is the use a public use within this State, and does it serve the interests of the people within the State?
>
> . . . The operation of the pipeline would not be for the benefit of the public in those States crossed by the pipeline but

> in which there is no distribution of natural gas by such line. But it is necessary to cross those States in carrying out the certificate granted by the Federal Power Commission. 1/

The Supreme Court of the United States stated the rule as follows:

> The proper view of the right of eminent domain seems to be, that it is a right belonging to a sovereignty to take private property for its own public uses, and not for those of another. Beyond that, there exists no necessity, which alone is the foundation of the right. If the United States has the power, it must be complete in itself. It can neither be enlarged nor diminished by a State. Nor can any State prescribe the manner in which it must be exercised. The consent of a State can never be a condition precedent to its enjoyment. Kohl v. United States, 91 U.S. 367, 373-74, 23 L.Ed. 449, 452 (1876).

Thus, it is clear that federal eminent domain is necessary to cross states not served by interstate pipelines.

In addition, granting federal eminent domain to interstate pipelines is an appropriate exercise of the Federal Government's responsibility to regulate interstate commerce. This responsibility was summarized well in the same Senate report on the 1947 amendments to the Natural Gas Act.

> Therefore, the Congress of the United States in carrying out its constitutional authority to regulate interstate commerce should correct this deficiency and omission in the Natural Gas Act by the passage of Senate bill 1028 which confers the right of eminent domain upon those natural gas companies which have qualified under the

---

1/ Shedd v. Northern Indiana Public Service Co., 206 Ind. 35, 188 N.E. 322 (Ind. 1934); Gover Irrigation & Land Co. v. Lovella Ditch R. & Irrigation Co., 21 Wyo. 204, 131 P. 43 (Wyo. 1913); Wooster v. Great Falls Manufacturing Co., 39 Me. 246 (Maine 1855); Salisbury Mills v. Forsaith, 57 N.H. 124 (N.H. 1876); Columbia Water Works Co. v. Long, 121 Ala. 245 (Ala. 1898); Washington Water Power Co. v. Water, 19 Idaho 595 (Idaho 1911); Carneige Natural Gas Co. v. Swinger, 72 W.Va. 557, 79 S.E. 3 (1913) (W. Va. 1913).

> Natural Gas Act to carry out and perform the terms of any certificate of public convenience and necessity acquired from the Federal Power Commission under the act.
>
> * * *
>
> . . . . Thus, the right of an interstate natural gas pipeline to cross intervening States in which no service is performed is a necessary protection of the free flow of commerce among the States and which can only be furnished by the Congress under its paramount jurisdiction to regulate interstate commerce . . .
>
> It has also been suggested that the granting of the right of eminent domain is a matter peculiarly within the legislative and constitutional purview of the States and that it is proper that such rights should rest with the States in order that the States may therefore be in a position to require a natural-gas pipeline company entering the State to serve the people of that State as a condition to obtaining the right of eminent domain. This argument defeats the very objectives of the Natural Gas Act . . . .
>
> As stated above, it is within the constitutional authority of Congress to regulate interstate commerce. In the performance of that constitutional authority, it is proper for the Congress to furnish proper necessary protection of the free flow of interstate commerce . . . .
>
> S. 1028 does not invade or interfere with the right of the States to impose any proper regulation upon intrastate activities, since its application is limited to exclusive interstate operations with respect to which the States may not constitutionally legislate.

The question has arisen whether the situation which mandated the 1947 amendment to the Natural Gas Act no longer exists because the states have relaxed their "public use" standards. It is simply not true to suggest that the public use standards no longer present significant obstacles for interstate coal pipelines. The determination of what constitutes a public use for purposes of state eminent domain is purely a matter of state law. The states vary significantly among themselves on this issue.

The situation referred to in the Senate Report still continues. None of the cases cited by the Senate Report have been overruled. For instance, Arkansas law on this matter, cited in the 1947 Senate Report, has recently been reaffirmed in an opinion by its Supreme Court. Starr Farms, Inc. v. Southwestern Electric Co., 271 Ark. 137 (Ark. 1980). The law on this point in the State of Florida is set out in an often-cited 1967 opinion:

> A State's power exists only within its territorial limits for the use and benefit of the people within the state. Thus, property in one state cannot be condemned for the sole purpose of serving a public use in another state. Clark v. Gulf Power Co., 198 So.2d 368, 371 (S. Ct. App. Fla. 1967) (emphasis supplied).

Any assertion that states have relaxed the "public use" standard in the years since the 1947 amendment to the Natural Gas Act is dispelled by considering the thorough and scholarly treatment of the eminent domain issue by the Supreme Court of North Dakota in its recent opinion, Square Butte Electric Cooperative v. Hilken, 244 N.W.2d 519 (N.D. 1976). See also Montana Power Co. v. Bokma, 457 P.2d 769 (Mont. 1969). In Square Butte, the court described the two lines of authority on "public use" -- what the court termed the "narrow" and "broad" views. Under the "narrow" view, the entity seeking to exercise eminent domain must actually provide service to the public in that state. The "broad" view recognizes a public use if the entity is subject to state regulation, has the potential for servicing local citizens, or provides other direct benefits to the citizens of the state.

Recognizing that some states still applied a "narrow" view, the divided court in Square Butte held that, even under a broad public interest standard, an out-of-state utility must prove a number of benefits which the eminent domain grant would provide to the people of North Dakota. The majority found the electric transmission line involved in that case constituted a public use only because of the cumulative nature of such factors as an increase in power reserves, stabilization of the local power grid, and the likelihood that North Dakota consumers would actually receive power from the project. Even then, two dissents were filed which argued that the benefits to North Dakota were too speculative.

It is important to stress that some coal pipelines may not be able to show even the minimal benefits required by the court in Square Butte, e.g., in those cases where the pipeline simply passes through a state and does not supply coal to utilities serving that state. Suffice it to say that even in states with "broad" public use standards, coal slurry pipelines would be at a singular disadvantage. Moreover, even if it is argued that coal pipelines could satisfy the "broad" public use test in a particular state, because the outcome of such a test is always problemmatical, there is a "serious problem of holdup suits by property owners using dilatory litigation as a bargaining technique." Note, State Constitutional Limitations on the Power of Eminent Domain, 77 Harvard L. Rev. 717, 718 (1964). The incentive for such needless litigation would be lessened under a federal standard. In addition, the "narrow" view remains the law in many states. Indeed, Indiana, whose supreme court applied the narrow view in Shedd, supra, subsequently adopted the narrow view statutorily. See Ind. Stat. Ann. §§ 32-11-3-1, 32-11-4-2. Maine has also adopted the narrow view by statute. Me. Rev. Stat. Ann. title 35, § 2533.

These public use standards have not eroded whatsoever in the light of the Supreme Court's opinion in Berman v. Parker, 348 U.S. 26 (1954). Berman stands for the proposition that under the United States Constitution Congress may adopt a broad public use test for the exercise of eminent domain in the District of Columbia. It does not mandate that Congress adopt such a test and does not hold that a narrow public use test would be unconstitutional. In any regard, this is irrelevant to a determination under state law whether a particular state will adopt the broad or narrow view of public use. Some states had broad public use tests in 1947 but other states did not. Berman does not affect the law in those states which continue to have narrow public use standards. 2/

2/ Indeed, to interpret Berman as saying the United States Constitution requires states to adopt a "broad" view of public use would be to suggest an impermissible federal encroachment on legitimate states' rights to determine their own laws.

Vinson and Elkins

May 6, 1982

MEMORANDUM

May 7, 1982

RE: Efforts by Coal Slurry Pipeline Proponents to Obtain Eminent Domain at a State Level

Each of the companies proposing to construct coal slurry pipelines have attempted to obtain adequate and effective eminent domain authority under state law along their proposed routes. This has never worked. A brief description of the various efforts follows.

1. Consolidation Coal Company. After constructing the first coal slurry pipeline in the United States -- an intrastate pipeline in Ohio -- in the 1950's, Consolidation Coal ceased operations of that line due to a substantially reduced rail rate to the consuming utilities for its total coal burn. That experience, nevertheless, demonstrated to Consol the economic potential of coal slurry pipelines. In the early 1960's, Consol and Stone and Webster proposed to construct a pipeline from West Virginia to the East Coast utility markets. After an historic legislative battle, West Virginia was able to pass legislation in 1961, although that legislation included conditions which made it essentially unworkable. Notwithstanding the inability to obtain eminent domain in Pennsylvania and New York as required to construct the pipeline, the passage of the legislation in West Virginia alone forced the railroads hauling coal from West Virginia to the Eastern utility markets to make a major reduction in Eastern rates.

2. ETSI Pipeline Project. ETSI originally proposed to construct a pipeline from the Powder River Basin from Wyoming to Arkansas in 1973. ETSI has tried throughout the ensuing years to pass state eminent domain laws in the states to be traversed, i.e., Kansas, Nebraska, Oklahoma, and Arkansas. They were only successful in Oklahoma and Arkansas. Although ETSI obtained state eminent domain in Oklahoma, the statute, as enacted, contains a sufficient number of rail-sponsored amendments to tie up use of the state statute for at least two years. Eminent domain bills in the Kansas and Nebraska legislatures failed to pass. ETSI has been able to find windows along the railroad right-of-ways which they can cross after expending in excess of $20 million in 6 years in litigation. Because ETSI was unable to obtain state eminent domain in Nebraska, they were forced to reroute their pipeline through Colorado at an expense in excess of $50 million.

3. San Marco Pipeline. In a joint venture of Houston Natural Gas and Rio Grande Industries, San Marco proposed in the Early 1970's to construct a pipeline from Colorado to Houston. They tried to pass legislation in Texas during the legislative sessions in 1973 and 1975 unsuccessfully. Finally, they passed legislation granting state eminent domain in Texas in 1977. However, they have never been able to pass such legislation in New Mexico.

4. Coalstream Pipeline Company. A subsidiary of Continental Resources Company, formerly the Florida Gas Company, Coalstream has been trying to put together rights-of-way from the Southern Illinois Basin and Appalachian Basin to planned coal-fired utility plants in Georgia and Florida since the mid-1970's. So far, Coalstream has only been able to secure the adoption of legislation in the State of Florida. That legislation is not effective, however, until all adjoining states grant similar eminent domain authority. Notwithstanding substantial amounts expended on legal and consultant help in the States of Georgia, Kentucky, and Tennessee, Coalstream has been unable to secure state eminent domain authority in any of those states. In Georgia, state eminent domain legislation was introduced, however, a consultant hired by Coalstream advised that since the Chairman of the Rules Committee was a full-time employee of Southern Railroad, there would be less than a 1% chance of getting the legislation through the Georgia legislature. Not surprisingly, the legislation did not move. In a subsequent meeting with the Governor of Georgia, he advised that seeking federal eminent domain would be more productive. In Kentucky, the legislation died in committee following strong railroad opposition.

We hope these examples demonstrate the efforts that have been made to obtain state eminent domain. Notwithstanding these efforts, the companies involved have always been concerned about the authority of the respective states involved to grant eminent domain in those instances where the coal pipeline will simply traverse the state, *i.e.*, not provide a local public use by either taking coal produced in that state or providing coal to utilities serving that state. Thus, the fact that these companies have attempted to pass state legislation should not be taken as an admission that any such legislation would be effective in the absence of federal legislation.

In light of the practical political problems these companies have faced and the potential legal problems involved in obtaining the eminent domain in states that are simply traversed (*see* memorandum dated September 24, 1981 in this regard), federal eminent domain is necessary to get the initial interstate coal pipelines presently planned underway.

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September 17, 1981

MEMORANDUM

RE: Federal Eminent Domain Authority Granted to Certain Railroads

---

I. BACKGROUND

Railroad opponents of Federal coal slurry pipeline legislation argue that pipelines should not have advantages which have not been granted to the railroads. One such advantage which is often cited by certain railroads is access to Federal eminent domain authority. For instance, in testimony delivered in Portland, Oregon, on August 27, 1981, Richard M. Bressler, Chief Executive Officer of Burlington Northern, Inc. stated, at page 6 of his testimony, a copy of which is attached as Attachment A:

> "We will continue to oppose the granting of Federal eminent domain to coal slurry pipelines along with the right to operate as private carriers serving only the most profitable routes and customers. Railroads have neither of these benefits."

Whether or not certain railroads, such as the Burlington Northern, have access to Federal eminent domain authority today, it is clear that at least the Burlington Northern, Union Pacific and Santa Fe Railroads had access to Federal eminent domain authority when the authority was most necessary--during construction of the railways.

II. UNION PACIFIC RAILROAD:

By Act of July 1, 1862, the Congress chartered the Union Pacific Railroad Company. To facilitate development of the railroad, Congress granted the company a 200-foot right-of-way on each side of the railroad across public lands and, for each mile of track constructed, five alternate sections of public land within a ten-mile limit on each side of the railroad. The Act excluded mineral lands from such land grants. 12 Stat. 489,491-2. On July 2, 1864, Congress amended the Act of 1862 to grant the Union Pacific title to twice as many alternate sections of land, to remove coal and iron lands from the mineral lands exclusion and, in Section 3 of the Act of 1864, to grant the railroad access to a broad Federal power of eminent domain. 13 Stat. 356, 357-58. Apparently, in the two years since the chartering of the Union Pacific, the railroad had determined that Federal eminent domain authority--in addition to the original grants of land--was necessary for the construction of the railway.

The grant of eminent domain was cast in broad terms, empowering the railroad "to enter upon, purchase, take, and hold _any_ lands or premises that may be necessary and proper for. . .the construction and working of said road." 13 Stat. 356, 357 (emphasis supplied). The Union Pacific was granted authority to build westward across the Territory of Nebraska and territories farther to the west until it linked up with the Central Pacific. 12 Stat. 489, 490, 493, 496. It might not have been necessary, therefore, for the Union Pacific to have used this Federal power within a state.

The Central Pacific Railroad, however, was authorized to build eastward from California across Nevada to link up with the Union Pacific. 12 Stat. 489, 494, 495. Since California was already a State when this authorizing legislation was passed, and Nevada itself became a State in 1864, the Central Pacific had access to the Federal power of eminent domain within the boundaries of a state, because that power was conferred on all companies involved in building the trans-continental railroad by terms of the Act, 13 Stat. 356, 357, subject only to the possible requirement of the affected State's consent. 12 Stat. 489, 495.

A significant remnant of this Federal power of eminent domain, available for use by any railroad or other private company, still exists. 43 U.S.C. § 942-3. See also Pub.L. 94-579, 90 Stat. 2793 (repealing part of the eminent domain statute). The present statute principally affects the condemnation under special circumstances of certain specific lands in Alaska for private use, and the substance of the modern statute consists of language taken directly from the original 1864 Act.

This grant of Federal eminent domain power involving the Union Pacific, then, was both broad and enduring. It enabled a railroad to condemn private property, in a State as well as a territory, and has persisted in a somewhat altered form to the present. (See attachment B for all statutes connected with the Union Pacific).

III. BURLINGTON NORTHERN RAILROAD:

The Burlington Northern Railroad was formed in 1970 from the merger of the Chicago, Burlington and Quincy, the Great Northern, the Northern Pacific, and the Pacific Coast railroads. (See U.S. Department of Justice, "Competition in the Coal Industry," 60 (1980)). By Act of July 2, 1864, Congress chartered the Northern Pacific Railroad Company and granted it a total of 400 feet of right-of-way across public lands, title to ten or twenty alternate sections of public land, in states and territories, respectively, per mile of track built, together with mineral rights to iron and coal on these lands. 13 Stat. 365, 367-68. The same broad grant of Federal eminent domain power which the Union Pacific enjoyed was also given to this railroad as well. 13 Stat. 365, 369.

The Northern Pacific was commissioned to build its railroad westward from a point in either Wisconsin or Minnesota, both admitted as States when this legislation was enacted. 13 Stat. 365, 366. It is plain, then, that possible use of this Federal power within a State was contemplated. (See Attachment C for all statutes connected with the Burlington Northern).

IV. SANTA FE RAILROAD:

The Santa Fe Railroad is the successor to the Atlantic and Pacific Railroad Company. In 1876, the Atlantic and Pacific was sold under foreclosure and reorganized as a part of the St. Louis and San Francisco Railroad. In 1880, a half interest in the

Atlantic and Pacific Railroad was sold to the Santa Fe and, in 1884, the Santa Fe purchased the other half of the Atlantic and Pacific from the Southern Pacific which had purchased the St. Louis and San Francisco Railroad. (See U.S. Department of Justice, "Competition in the Coal Industry," supra, at 61 n.150.)

By Act of July 27, 1866, the Atlantic and Pacific Railroad Company was granted 200 feet of right-of-way across public lands, title to ten or twenty alternate sections of public land, in states and territories, respectively, per mile of track built, together with the mineral rights the mineral rights to iron and coal on these lands. 14 Stat. 292, 295. The same broad Federal power of eminent domain given previously to the other railroads, was also granted to this railroad. 14 Stat. 292, 296.

Because the route of the Atlantic and Pacific traversed Missouri and Kansas, that were both then states, 14 Stat. 292, 295, the power of eminent domain that had been granted had potential applications within state boundaries. (See attachment D for all statutes connected with the Santa Fe).

Attachment A

CI —
JR

Written Statement of Richard M. Bressler
President and Chief Executive Officer, Burlington Northern Inc.
Before the Senate Committee on Commerce, Science and Transportation
Portland Oregon
August 27, 1981

My name is Richard M. Bressler. I am President and Chief Executive Officer of Burlington Northern Inc. I appreciate the opportunity to testify before this hearing concerning the further development of our ports and ways to accommodate growth in the commerce which moves through them.

Growth is a subject we know a lot about at Burlington Northern. For example, we have played an important role in the doubling of grain exports through Pacific Northwest ports which has occurred since 1977. Our unit grain train operations have greatly speeded up the movement of grain, thus increasing our capacity. The economies resulting from this type of operation have also allowed us to establish substantially lower freight rates. We expect that grain export traffic will continue to grow at a rapid pace and we currently have surplus capacity available to meet the demand for this type of transportation.

Even more dramatic has been the growth in coal traffic handled by Burlington Northern. In 1976, our rail system originated just under 43 million tons of coal. Last year, we handled over 100 million tons. In 1984, we expect to originate between 140 and 145 million tons of coal. During the 1976-1980 period, we invested $1.1 billion to accommodate this growth. We expect to invest an additional $425 million through 1984.

DEVELOP THIS BUSINESS, BUT NO ONE IS BEATING DOWN OUR DOOR IN AN EFFORT TO SIGN A CONTRACT. WE BELIEVE THAT SUBSTANTIAL VOLUMES OF COAL WILL MOVE THROUGH PACIFIC NORTHWEST PORTS, BUT NOT UNTIL THE CONSUMING NATIONS ARE READY TO MAKE THE CONTRACTUAL COMMITMENTS THAT WILL PERMIT THESE EXPORTS TO BEGIN. DESPITE ANYTHING THAT WE MIGHT SAY OR DO, THE CUSTOMER IS STILL THE BOSS.

IN SUMMARY, BURLINGTON NORTHERN STRONGLY SUPPORTS GROWTH IN INTERNATIONAL TRADE. WE BELIEVE THAT THE DEVELOPMENT OF ADDITIONAL TONNAGE MOVING THROUGH PACIFIC NORTHWEST PORTS WILL BE VERY IMPORTANT TO THE FUTURE OF OUR COMPANY AND WE WILL CONTINUE TO WORK AGRESSIVELY TO PROMOTE THIS TYPE OF BUSINESS.

BEFORE ENDING, MR. CHAIRMAN, I WOULD LIKE TO COVER ONE FINAL POINT. I NOTE THAT ONE OF YOUR WITNESSES WILL REPRESENT A COMPANY WHICH HAS PROPOSED BUILDING A COAL SLURRY PIPELINE. WHILE WE VIGOROUSLY OPPOSE THE GRANTING OF SPECIAL PRIVILEGES AND ADVANTAGES TO OUR COMPETITORS BY THE FEDERAL GOVERNMENT, BURLINGTON NORTHERN DOES NOT OPPOSE THE CONSTRUCTION OF COAL SLURRY PIPELINES WHERE ECONOMICALLY FEASIBLE AND WHERE WATER SUPPLIES ARE ADEQUATE. NOR DO WE OPPOSE ADDITIONAL COMPETITION FOR THE RAIL HAULING OF COAL.

WE WILL CONTINUE TO OPPOSE THE GRANTING OF FEDERAL EMINENT DOMAIN TO COAL SLURRY PIPELINES ALONG WITH THE RIGHT TO OPERATE AS PRIVATE CARRIERS, SERVING ONLY THE MOST PROFITABLE ROUTES AND CUSTOMERS. RAILROADS HAVE NEITHER OF THESE BENEFITS.

THERE ARE NO LAWS IN EXISTENCE TODAY WHICH PROHIBIT THE CONSTRUCTION OF COAL SLURRY PIPELINES. IF A COAL SLURRY PIPELINE IS PROPOSED UNDER EXISTING LAW AND OPERATES AS A TRUE COMMON CARRIER, WE WOULD HAVE NO OBJECTION TO COMPETING WITH IT.

Attachment B

dollars, appropriated to complete the capitol in New Mexico, by the second section of an act of Congress approved June twenty-five, eighteen hundred and sixty, and the sum of fifty thousand dollars, appropriated for military roads in New Mexico, by act of Congress approved March two, eighteen hundred and sixty-one, be, and the same are hereby, credited to the Territory of New Mexico in payment of the direct annual tax of sixty-two thousand six hundred and forty-eight dollars levied upon said Territory under the eighth section of an act of Congress approved August five, eighteen hundred and sixty-one, to be taken up on account of said direct tax under said [act] as the same may fall due to the United States from said Territory.

Certain sums credited to New Mexico on account of direct tax.

1860, ch. 211.
Ante, p. 110.
1861, ch. 72.
Ante, p. 226.

1861, ch. 45, § 8.
Ante, p. 295.

Sec. 119. *And be it further enacted*, That so much of an act entitled "An act to provide increased revenue from imports, to pay interest on the public debt, and for other purposes," approved August fifth, eighteen hundred and sixty-one, as imposes a direct tax of twenty millions of dollars on the United States, shall be held to authorize the levy and collection of one tax to that amount; and no other tax shall be levied under and by virtue thereof until the first day of April, eighteen hundred and sixty-five, when the same shall be in full force and effect.

Only one direct tax to be laid under act 1861, ch. 45, until April 1, 1865.

Ante, p. 294.

Approved, July 1, 1862.

Chap. CXX. — *An Act to aid in the Construction of a Railroad and Telegraph Line from the Missouri River to the Pacific Ocean, and to secure to the Government the Use of the same for Postal, Military, and Other Purposes.*

July 1, 1862.

Union
Pacific Railroad.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Walter S. Burgess, William P. Blodget, Benjamin H. Cheever, Charles Fosdick Fletcher, of Rhode Island; Augustus Brewster, Henry P. Haven, Cornelius S. Bushnell, Henry Hammond, of Connecticut; Isaac Sherman, Dean Richmond, Royal Phelps, William H. Ferry, Henry A. Paddock, Lewis J. Stancliff, Charles A. Secor, Samuel R. Campbell, Alfred E. Tilton, John Anderson, Azariah Boody, John S. Kennedy, H. Carver, Joseph Field, Benjamin F. Camp, Orville W. Childs, Alexander J. Bergen, Ben. Holliday, D. N. Barney, S. De Witt Bloodgood, William H. Grant, Thomas W. Olcott, Samuel B. Ruggles, James B. Wilson, of New York; Ephraim Marsh, Charles M. Harker, of New Jersey; John Edgar Thompson, Benjamin Haywood, Joseph H. Scranton, Joseph Harrison, George W. Cass, John H. Bryant, Daniel J. Morell, Thomas M. Howe, William F. Johnson, Robert Finney, John A. Green, E. R. Myre, Charles F. Wells, junior, of Pennsylvania; Noah L. Wilson, Amasa Stone, William H. Clement, S. S. L'Hommedieu, John Brough, William Dennison, Jacob Blickinsderfer, of Ohio; William M. McPherson, R. W. Wells, Willard P. Hall, Armstrong Beatty, John Corby, of Missouri; S. J. Hensley, Peter Donahue, C. P. Huntington, T. D. Judah, James Bailey, James T. Ryan, Charles Hosmer, Charles Marsh, D. O. Mills, Samuel Bell, Louis McLane, George W. Mowe, Charles McLaughlin, Timothy Dame, John R. Robinson, of California; John Atchison and John D. Winters, of the Territory of Nevada; John D. Campbell, R. N. Rice, Charles A. Trowbridge, and Ransom Gardner, Charles W. Penny, Charles T. Gorham, William McConnell, of Michigan; William F. Coolbaugh, Lucius H. Langworthy, Hugh T. Reid, Hoyt Sherman, Lyman Cook, Samuel R. Curtis, Lewis A. Thomas, Platt Smith, of Iowa; William B. Ogden, Charles G. Hammond, Henry Farnum, Amos C. Babcock, W. Seldon Gale, Nehemiah Bushnell and Lorenzo Bull, of Illinois; William H. Swift, Samuel T. Dana, John Bertram, Franklin S. Stevens, Edward R. Tinker, of Massachusetts; Franklin Gorin, Laban J. Bradford, and John T. Levis, of Kentucky; James Dunning, John M. Wood, Edwin Noyes, Joseph Eaton, of Maine; Henry H. Baxter, George W. Collamer, Henry Keyes, Thomas H. Canfield, of Vermont; William S. Ladd, A. M. Berry,

Corporators.

Indian titles to be extinguished.

shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act and required for the said right of way and grants hereinafter made.

Alternate sections on each side of railroad, &c., granted to company.

land grants

Mineral lands excepted.

Timber.

Lands when to be subject to settlement and preëmption.

SEC. 3. *And be it further enacted*, That there be, and is hereby, granted to the said company, for the purpose of aiding in the construction of said railroad and telegraph line, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores thereon, every alternate section of public land, designated by odd numbers, to the amount of five alternate sections per mile on each side of said railroad, on the line thereof, and within the limits of ten miles on each side of said road, not sold, reserved, or otherwise disposed of by the United States, and to which a preëmption or homestead claim may not have attached, at the time the line of said road is definitely fixed: *Provided*, That all mineral lands shall be excepted from the operation of this act; but where the same shall contain timber, the timber thereon is hereby granted to said company. And all such lands, so granted by this section, which shall not be sold or disposed of by said company within three years after the entire road shall have been completed, shall be subject to settlement and preëmption, like other lands, at a price not exceeding one dollar and twenty-five cents per acre, to be paid to said company.

Patents for said lands when and how to issue.

Commissioners.

Company to render statement on oath.

SEC. 4. *And be it further enacted*, That whenever said company shall have completed forty consecutive miles of any portion of said railroad and telegraph line, ready for the service contemplated by this act, and supplied with all necessary drains, culverts, viaducts, crossings, sidings, bridges, turnouts, watering places, depots, equipments, furniture, and all other appurtenances of a first class railroad, the rails and all the other iron used in the construction and equipment of said road to be American manufacture of the best quality, the President of the United States shall appoint three commissioners to examine the same and report to him in relation thereto; and if it shall appear to him that forty consecutive miles of said railroad and telegraph line have been completed and equipped in all respects as required by this act, then, upon certificate of said commissioners to that effect, patents shall issue conveying the right and title to said lands to said company, on each side of the road as far as the same is completed, to the amount aforesaid; and patents shall in like manner issue as each forty miles of said railroad and telegraph line are completed, upon certificate of said commissioners. Any vacancies occurring in said board of commissioners by death, resignation, or otherwise, shall be filled by the President of the United States: *Provided, however*, That no such commissioners shall be appointed by the President of the United States unless there shall be presented to him a statement, verified on oath by the president of said company, that such forty miles have been completed, in the manner required by this act, and setting forth with certainty the points where such forty miles begin and where the same end; which oath shall be taken before a judge of a court of record.

United States bonds when and how to issue to said company.

Interest.

SEC. 5. *And be it further enacted*, That for the purposes herein mentioned the Secretary of the Treasury shall, upon the certificate in writing of said commissioners of the completion and equipment of forty consecutive miles of said railroad and telegraph, in accordance with the provisions of this act, issue to said company bonds of the United States of one thousand dollars each, payable in thirty years after date, bearing six per centum per annum interest, (said interest payable semi-annually,) which interest may be paid in United States treasury notes or any other money or currency which the United States have or shall declare lawful money and a legal tender, to the amount of sixteen of said bonds per mile for such section of forty miles; and to secure the repayment to the United States, as hereinafter provided, of the amount of said bonds so issued and delivered to said company, together with all interest thereon which shall have been paid by the United States, the issue of said bonds and delivery

Issue and delivery of bonds to constitute first mortgage of road, stock, &c.

Proceedings upon failure to redeem bonds.

to the company shall ipso facto constitute a first mortgage on the whole line of the railroad and telegraph, together with the rolling stock, fixtures and property of every kind and description, and in consideration of which said bonds may be issued; and on the refusal or failure of said company to redeem said bonds, or any part of them, when required so to do by the Secretary of the Treasury, in accordance with the provisions of this act, the said road, with all the rights, functions, immunities, and appurtenances thereunto belonging, and also all lands granted to the said company by the United States, which, at the time of said default, shall remain in the ownership of the said company, may be taken possession of by the Secretary of the Treasury, for the use and benefit of the United States: *Provided*, This section shall not apply to that part of any road now constructed.

Grants conditioned to pay bonds at maturity,

to keep road and telegraph in repair,

to transmit despatches and transport mails, troops, &c.

Government to have preference.

Pay therefor how to be applied.

Sec. 6. *And be it further enacted*, That the grants aforesaid are made upon condition that said company shall pay said bonds at maturity, and shall keep said railroad and telegraph line in repair and use, and shall at all times transmit despatches over said telegraph line, and transport mails, troops, and munitions of war, supplies, and public stores upon said railroad for the government, whenever required to do so by any department thereof, and that the government shall at all times have the preference in the use of the same for all the purposes aforesaid, (at fair and reasonable rates of compensation, not to exceed the amounts paid by private parties for the same kind of service;) and all compensation for services rendered for the government shall be applied to the payment of said bonds and interest until the whole amount is fully paid. Said company may also pay the United States, wholly or in part, in the same or other bonds, treasury notes, or other evidences of debt against the United States, to be allowed at par; and after said road is completed, until said bonds and interest are paid, at least five per centum of the net earnings of said road shall also be annually applied to the payment thereof.

Company to file assent, &c.,

to complete railroad, &c.

General route to be designated in two years.

Map to be filed.

Point of junction of main trunk with eastern connections.

Sec. 7. *And be it further enacted*, That said company shall file their assent to this act, under the seal of said company, in the Department of the Interior, within one year after the passage of this act, and shall complete said railroad and telegraph from the point of beginning as herein provided, to the western boundary of Nevada Territory before the first day of July, one thousand eight hundred and seventy-four: *Provided*, That within two years after the passage of this act said company shall designate the general route of said road, as near as may be, and shall file a map of the same in the Department of the Interior, whereupon the Secretary of the Interior shall cause the lands within fifteen miles of said designated route or routes to be withdrawn from preëmption, private entry, and sale; and when any portion of said route shall be finally located, the Secretary of the Interior shall cause the said lands hereinbefore granted to be surveyed and set off as fast as may be necessary for the purposes herein named: *Provided*, That in fixing the point of connection of the main trunk with the eastern connections, it shall be fixed at the most practicable point for the construction of the Iowa and Missouri branches, as hereinafter provided.

Line of railroad and telegraph, where to commence.

Direction.

✓ Sec. 8. *And be it further enacted*, That the line of said railroad and telegraph shall commence at a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, at a point to be fixed by the President of the United States, after actual surveys; thence running westerly upon the most direct, central, and practicable route, through the territories of the United States, to the western boundary of the Territory of Nevada, there to meet and connect with the line of the Central Pacific Railroad Company of California.

Sec. 9. *And be it further enacted*, That the Leavenworth, Pawnee, Leavenworth, Pawnee, &c. R. R. Co. may construct railroad and telegraph from Missouri River to Pacific railroad.

Location.

To be subject to approval of President.

Central Pacific Railroad Company may construct railroad and telegraph line.

Companies to file acceptance of this act.

and Western Railroad Company of Kansas are hereby authorized to construct a railroad and telegraph line, from the Missouri River, at the mouth of the Kansas River, on the south side thereof, so as to connect with the Pacific railroad of Missouri, to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, as herein provided, upon the same terms and conditions in all respects as are provided in this act for the construction of the railroad and telegraph line first mentioned, and to meet and connect with the same at the meridian of longitude aforesaid; and in case the general route or line of road from the Missouri River to the Rocky Mountains should be so located as to require a departure northwardly from the proposed line of said Kansas railroad before it reaches the meridian of longitude aforesaid, the location of said Kansas road shall be made so as to conform thereto; and said railroad through Kansas shall be so located between the mouth of the Kansas River, as aforesaid, and the aforesaid point, on the one hundredth meridian of longitude, that the several railroads from Missouri and Iowa, herein authorized to connect with the same, can make connection within the limits prescribed in this act, provided the same can be done without deviating from the general direction of the whole line to the Pacific coast. The route in Kansas, west of the meridian of Fort Riley, to the aforesaid point, on the one hundredth meridian of longitude, to be subject to the approval of the President of the United States, and to be determined by him on actual survey. And said Kansas company may proceed to build said railroad to the aforesaid point, on the one hundredth meridian of longitude west from Greenwich, in the territory of Nebraska. The Central Pacific Railroad Company of California, a corporation existing under the laws of the State of California, are hereby authorized to construct a railroad and telegraph line from the Pacific coast, at or near San Francisco, or the navigable waters of the Sacramento River, to the eastern boundary of California, upon the same terms and conditions, in all respects, as are contained in this act for the construction of said railroad and telegraph line first mentioned, and to meet and connect with the first mentioned railroad and telegraph line on the eastern boundary of California. Each of said companies shall file their acceptance of the conditions of this act in the Department of the Interior within six months after the passage of this act.

Said railroads, how and when to be completed.

May be united after completion.

Hannibal and St. Joseph R. R. and Pacific R. R. Co. of Missouri, &c., may unite with the Kansas company.

Sec. 10. *And be it further enacted*, That the said company chartered by the State of Kansas shall complete one hundred miles of their said road, commencing at the mouth of the Kansas River as aforesaid, within two years after filing their assent to the conditions of this act, as herein provided, and one hundred miles per year thereafter until the whole is completed; and the said Central Pacific Railroad Company of California shall complete fifty miles of their said road within two years after filing their assent to the provisions of this act, as herein provided, and fifty miles per year thereafter until the whole is completed; and after completing their roads, respectively, said companies, or either of them, may unite upon equal terms with the first-named company in constructing so much of said railroad and telegraph line and branch railroads and telegraph lines in this act hereinafter mentioned, through the Territories from the State of California to the Missouri River, as shall then remain to be constructed, on the same terms and conditions as provided in this act in relation to the said Union Pacific Railroad Company. And the Hannibal and St. Joseph Railroad, the Pacific Railroad Company of Missouri, and the first-named company, or either of them, on filing their assent to this act, as aforesaid, may unite upon equal terms, under this act, with the said Kansas company, in constructing said railroad and telegraph, to said meridian of longitude, with the consent of the said State of Kansas; and in case said first-named company shall complete their line to the eastern boundary of California before it is completed across said State by the Central Pacific Railroad Company of California, said first-named company is hereby authorized to continue in constructing the same through California, with the consent of said State, upon the terms mentioned in this act, until said roads shall meet and connect, and the whole line of said railroad and telegraph is completed; and the Central Pacific Railroad Company of California, after completing its road across said State, is authorized to continue the construction of said railroad and telegraph through the Territories of the United States to the Missouri River, including the branch roads specified in this act, upon the routes hereinbefore and hereinafter indicated, on the terms and conditions provided in this act in relation to the said Union Pacific Railroad Company, until said roads shall meet and connect, and the whole line of said railroad and branches and telegraph is completed.

Central Pacific may continue construction, &c.

SEC. 11. *And be it further enacted*, That for three hundred miles of said road most mountainous and difficult of construction, to wit: one hundred and fifty miles westwardly from the eastern base of the Rocky Mountains, and one hundred and fifty miles eastwardly from the western base of the Sierra Nevada mountains, said points to be fixed by the President of the United States, the bonds to be issued to aid in the construction thereof shall be treble the number per mile hereinbefore provided, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed; and between the sections last named of one hundred and fifty miles each, the bonds to be issued to aid in the construction thereof shall be double the number per mile first mentioned, and the same shall be issued, and the lands herein granted be set apart, upon the construction of every twenty miles thereof, upon the certificate of the commissioners as aforesaid that twenty consecutive miles of the same are completed: *Provided*, That no more than fifty thousand of said bonds shall be issued under this act to aid in constructing the main line of said railroad and telegraph.

Aid for the most mountainous and difficult parts of roads to be treble, &c.

SEC. 12. *And be it further enacted*, That whenever the route of said railroad shall cross the boundary of any State or Territory, or said meridian of longitude, the two companies meeting or uniting there shall agree upon its location at that point, with reference to the most direct and practicable through route, and in case of difference between them as to said location the President of the United States shall determine the said location; the companies named in each State and Territory to locate the road across the same between the points so agreed upon, except as herein provided. The track upon the entire line of railroad and branches shall be of uniform width, to be determined by the President of the United States, so that, when completed, cars can be run from the Missouri River to the Pacific coast; the grades and curves shall not exceed the maximum grades and curves of the Baltimore and Ohio railroad; the whole line of said railroad and branches and telegraph shall be operated and used for all purposes of communication, travel, and transportation, so far as the public and government are concerned, as one connected, continuous line; and the companies herein named in Missouri, Kansas, and California, filing their assent to the provisions of this act, shall receive and transport all iron rails, chairs, spikes, ties, timber, and all materials required for constructing and furnishing said first-mentioned line between the aforesaid point, on the one hundredth meridian of longitude and western boundary of Nevada Territory, whenever the same is required by said first-named company, at cost, over that portion of the roads of said companies constructed under the provisions of this act.

Location, where route crosses boundary of any State, &c.

Track to be of uniform width.
1863, ch. 112.
Post, p. 807.
Grades and curves.

Road and branches, &c., to be one line.

SEC. 13. *And be it further enacted*, That the Hannibal and Saint Joseph Railroad Company of Missouri may extend its roads from Saint Joseph, via Atchison, to connect and unite with the road through Kansas, upon

Hannibal and St. Joseph Company may extend its road, &c.

Hannibal and St. Joseph Railroad.

filing its assent to the provisions of this act, upon the same terms and conditions, in all respects, for one hundred miles in length next to the Missouri River, as are provided in this act for the construction of the railroad and telegraph line first mentioned, and may for this purpose, use any railroad charter which has been or may be granted by the legislature of Kansas; *Provided*, That if actual survey shall render it desirable, the said company may construct their road, with the consent of the Kansas legislature, on the most direct and practicable route west from St. Joseph, Missouri, so as to connect and unite with the road leading from the western boundary of Iowa at any point east of the one hundredth meridian of west longitude, or with the main trunk road at said point; but in no event shall lands or bonds be given to said company, as herein directed, to aid in the construction of their said road for a greater distance than one hundred miles. And the Leavenworth, Pawnee, and Western Railroad Company of Kansas may construct their road from Leavenworth to unite with the road through Kansas.

Union Pacific Railroad to construct single line from western boundary of Iowa.

When to be completed.

✓Sec. 14. *And be it further enacted*, That the said Union Pacific Railroad Company is hereby authorized and required to construct a single line of railroad and telegraph from a point on the western boundary of the State of Iowa, to be fixed by the President of the United States, upon the most direct and practicable route, to be subject to his approval, so as to form a connection with the lines of said company at some point on the one hundredth meridian of longitude aforesaid, from the point of commencement on the western boundary of the State of Iowa, upon the same terms and conditions, in all respects, as are contained in this act for the construction of the said railroad and telegraph first mentioned; and the said Union Pacific Railroad Company shall complete one hundred miles of the road and telegraph in this section provided for, in two years after filing their assent to the conditions of this act, as by the terms of this act required, and at the rate of one hundred miles per year thereafter, until the whole is completed: *Provided*, That a failure upon the part of said company to make said connection in the time aforesaid, and to perform the obligations imposed on said company by this section and to operate said road in the same manner as the main line shall be operated, shall forfeit to the government of the United States all the rights, privileges, and franchises granted to and conferred upon said company by this act. And whenever there shall be a line of railroad completed through Minnesota or Iowa to Sioux City, then the said Pacific Railroad Company is hereby authorized and required to construct a railroad and telegraph from said Sioux City upon the most direct and practicable route to a point on, and so as to connect with, the branch railroad and telegraph in this section hereinbefore mentioned, or with the said Union Pacific Railroad, said point of junction to be fixed by the President of the United States, not further west than the one hundredth meridian of longitude aforesaid, and on the same terms and conditions as provided in this act for the construction of the Union Pacific Railroad as aforesaid, and to complete the same at the rate of one hundred miles per year; and should said company fail to comply with the requirements of this act in relation to the said Sioux City railroad and telegraph, the said company shall suffer the same forfeitures prescribed in relation to the Iowa branch railroad and telegraph hereinbefore mentioned.

Other railroads may connect.

Meaning of word "company" in this act.

Sec. 15. *And be it further enacted*, That any other railroad company now incorporated, or hereafter to be incorporated, shall have the right to connect their road with the road and branches provided for by this act, at such places and upon such just and equitable terms as the President of the United States may prescribe. Wherever the word company is used in this act it shall be construed to embrace the words their associates, successors, and assigns, the same as if the words had been properly added thereto.

July 2, 1864.

Chap. CCXV. — *An Act to provide for the more speedy Punishment of Guerilla Marau ers, and for other Purposes.*

Sentences against guerilla marauders, who may carry into effect.
1863, ch. 75, § 21.
Vol. xii. p. 735.

Be it enacted by the Senate and House of Representatives of the Unit States of America in Congress assembled, That the provisions of t twenty-first section of an act entitled "An act for enrolling and calli out the national forces, and for other purposes," approved third Marc eighteen hundred and sixty-three, shall apply as well to the sentences military commissions as to those of courts-martial, and hereafter the co manding general in the field, or the commander of the department, as t case may be, shall have power to carry into execution all sentences agai guerilla marauders for robbery, arson, burglary, rape, assault with inte to commit rape, and for violation of the laws and customs of war, as w as sentences against spies, mutineers, deserters, and murderers.

Officer ordering court-martial may remit, &c., sentence of court.

Sec. 2. *And be it further enacted,* That every officer authorized order a general court-martial shall have power to pardon or mitigate a punishment ordered by such court, including that of confinement in t penitentiary, except the sentence of death, or of cashiering or dismissi an officer, which sentences it shall be competent during the continuance the present rebellion for the general commanding the army in the field, the department commander, as the case may be, to remit or mitigate; a the fifth section of the act approved July seventeenth, eighteen hundr and sixty-two, chapter two hundred and one, be, and the same is here repealed, so far as it relates to sentences of imprisonment in the penit tiary.

Repeal of 1862, ch. 201, § 5.
Vol. xii. p. 598.

Soldiers sick in hospital and discharged, but dying in hospital, &c., to be entitled to bounties.

Sec. 3. *And be it further enacted,* That when a soldier sick in hospi shall have been discharged, or shall be discharged, from the military servi but shall be unable to leave, or to avail himself of his discharge, in c sequence of sickness or of wounds, and shall subsequently die in s hospital, he shall be deemed to have died in the military service, so far relates to bounties.

Approved, July 2, 1864.

July 2, 1864.

Chap. CCXVI. — *An Act to amend an Act entitled "An Act to aid in the Constru of a Railroad and Telegraph Line from the Missouri River to the Pacific Ocean, to secure to the Government the Use of the same for Postal, Military, and other Purpo approved July first, eighteen hundred and sixty-two.*

1862, ch. 120.
Vol. xii. p. 489.
1865, ch. 88.
Post, p. 504.

Union Pacific Railroad

Shares in capital stock of Pacific Railroad to be $100 each.

Be it enacted by the Senate and House of Representatives of the Un States of America in Congress assembled, That the capital stock of company entitled the Union Pacific Railroad Company, authorized by act of which this act is amendatory, shall be in shares of one hund dollars, instead of one thousand dollars, each; that the number of sha shall be one million, instead of one hundred thousand; and that the n ber of shares which any person shall hold to entitle him to serve a director in said company (except the five directors to be appointed government) shall be fifty shares, instead of five shares; and that ev subscriber to said capital stock for each share of one thousand doll heretofore subscribed, shall be entitled to a certificate for ten shares one hundred dollars each; and that the following words in section fir said act: "which shall be subscribed for and held in not more than hundred shares by any one person," be, and the same are hereby, repea

Number of shares.

Directors to hold fifty shares.

Part of act of 1862, ch. 120, § 1, repealed.
Vol. xii. p. 490.

Books of subscription to be kept open in certain cities.

Sec. 2. *And be it further enacted,* That the Union Pacific Rail Company shall cause books to be kept open to receive subscriptions to capital stock of said company, (until the entire capital of one hund millions of dollars shall be subscribed,) at the general office of said c pany in the city of New York, and in each of the cities of Boston, Ph delphia, Baltimore, Chicago, Cincinnati, and Saint Louis, at such pla as may be designated by the President of the United States, and in s other localities as may be directed by him. No subscription for said st

Subscription not to be valid unless, &c.

Assessments.

Stock not to be increased, &c.; to be personal property.

shall be deemed valid unless the subscriber therefor shall, at the time of subscribing, pay or remit to the treasurer of the company an amount per share subscribed by him equal to the amount per share previously paid by the then existing stockholders. The said company shall make assessments upon its stockholders of not less than five dollars per share, and at intervals of not exceeding six months from and after the passage of this act, until the par value of all shares subscribed shall be fully paid; and money only shall be receivable for any such assessment, or as equivalents for any portion of the capital stock hereinbefore authorized. The capital stock of said company shall not be increased beyond the actual cost of said road. And the stock of the company shall be deemed personal property, and shall be transferable on the books of the company, at the general office of said company in the city of New York, or at such other transfer office as the company may establish.

Railroads may take and hold lands necessary for road, &c.

eminent domain

Damages.

Appraisement.

Appeal from assessment.

Damages to land of absent owners.

Sec. 3. *And be it further enacted*, That the Union Pacific Railroad Company, and all other companies provided for in this act and the act to which this is an amendment, be, and hereby are, empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of its centre line, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station house[s], or any other structures required in the construction and operating of said road. And each of said companies shall have the right to cut and remove trees or other materials that might by falling encumber its road-bed, though standing or being more than one hundred feet therefrom. And in case the owner or claimant of such lands or premises and such company cannot agree as to the damages, the amount shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by any party to any judge of a court of record in any of the territories in which the lands or premises to be taken lie; and said commissioners, in their assessments of damages, shall appraise such premises at what would have been the value thereof if the road had not been built; and upon return into court of such appraisement, and upon the payment to the clerk thereof of the amount so awarded by the commissioners for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved by said assessment may, within thirty days, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary in the construction of its road. And said party appealing shall give bonds with sufficient surety or sureties, for the payment of any costs that may arise upon such appeal. And in case the party appealing does not obtain a more favorable verdict, such party shall pay the whole cost incurred by the appellee, as well as its own. And the payment into court for the use of the owner or claimant, of a sum equal to that finally awarded shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintaining, and operating of the road of said company. And in case any of the lands to be taken as aforesaid shall be held by any person residing without the territory, or subject to any legal disability, the court may appoint a proper person who shall give bonds with sufficient surety or sureties, for the faithful execution of his trust, and who may represent in court the person disqualified or absent as aforesaid, when the same proceeding shall be had in reference to the appraisement of the premises to be taken, and with the same effect as have been already described. And the title of the company to the land taken by virtue of this

Damages to unoccupied lands.

Agreements as to damages of persons under disability.

act shall not be affected nor impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case it shall be necessary for either of the said companies to enter upon lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purpose of its said railroad, and may institute proceedings in manner described for the purpose of ascertaining the value of, and acquiring a title to, the same; and the court may determine the kind of notice to be served on such owner or owners, and may in its discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claim to damages against said company shall be barred. It shall be competent for the legal guardian of any infant, or any other person under guardianship, to agree with the proper company as to damages sustained by reason of the taking of any lands of any such person under disability, as aforesaid, for the use as aforesaid; and upon such agreement being made, and approved by the court having supervision of the official acts of said guardian, the said guardian shall have full power to make and execute a conveyance thereof to the said company which shall vest the title thereto in the said company.

Amendments of §§ 3, 7, of act of 1862, ch. 120. Vol. xii. p. 492.

"Mineral land" not to include coal and iron.

Preëmption, homestead, &c., rights not affected hereby.

Limit to exemption.

Timber.

Lands granted to colleges not included herein.

1862, ch. 130. Vol. xii. p. 503.

additional land gran

SEC. 4. *And be it further enacted*, That section three of said act be hereby amended by striking out the word "five," where the same occurs in said section, and by inserting in lieu thereof the word "ten;" and by striking out the word "ten," where the same occurs in said section, and by inserting in lieu thereof the word "twenty." And section seven of said act is hereby amended by striking out the word "fifteen," where the same occurs in said section, and inserting in lieu thereof the word "twenty-five." And the term "mineral land," wherever the same occurs in this act, and the act to which this is an amendment, shall not be construed to include coal and iron land. And any lands granted by this act, or the act to which this is an amendment, shall not defeat or impair any preëmption, homestead, swamp land, or other lawful claim, nor include any government reservation or mineral lands, or the improvements of any bona fide settler, or any lands returned and denominated as mineral lands, and the timber necessary to support his said improvements as a miner, or agriculturalist, to be ascertained under such rules as have been or may be established by the commissioner of the general land-office, in conformity with the provisions of the preëmption laws: *Provided*, That the quantity thus exempted by the operation of this act, and the act to which this act is an amendment, shall not exceed one hundred and sixty acres for each settler who claims as an agriculturalist, and such quantity for each settler who claims as a miner, as the said commissioner may establish by general regulation: *Provided, also*, That the phrase "but where the same shall contain timber, the timber thereon is hereby granted to said company," in the proviso to said section three, shall not apply to the timber growing or being on any land farther than ten miles from the centre line of any one of said roads or branches mentioned in said act, or in this act. And all lands shall be excluded from the operation of this act, and of the act to which this act is an amendment, which were located, or selected to be located, under the provisions of an act entitled "an act donating lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July second, eighteen hundred and sixty-two, and notice thereof given at the proper land-office.

Time for designating route, filing map, &c., extended, &c.

SEC. 5. *And be it further enacted*, That the time for designating the general route of said railroad, and of filing the map of the same, and the time for the completion of that part of the railroads required by the terms of said act of each company, be, and the same is hereby, extended one year from the time in said act designated; and that the Central Pacific

§ 942—3. Same; condemnation of land

Where any company, the right of way to which is granted by sections 687a, 687a—2 to 687a—5, and 942—1 to 942—9 of this title and sections 607a and 615a of Title 16, shall in the course of construction find it necessary to pass over private lands or possessory claims on lands of the United States, condemnation of a right of way across the same may be made in the following manner: In case the owner or claimant of such lands or premises and such company can not agree as to the damages, the amount shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by any party to any judge of a court of record in Alaska; and said commissioners, in their assessments of damages, shall appraise such premises at what would have been the value thereof if the road had not been built; and upon return into court of such appraisement, and upon the payment to the clerk thereof of the amount so awarded by the commissioners for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved by said assessment may, within thirty days, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary in the construction of its road. And said party appealing shall give bonds with sufficient surety or sureties for the payment of any costs that may arise upon such appeal. And in case the party appealing does not obtain a more favorable verdict, such party shall pay the whole cost incurred by the appellee, as well as its own. And the payment into court for the use of the owner of claimant, of a sum equal to that finally awarded shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintaining and operating of the road of said company. And in case any of the lands to be taken as aforesaid shall be held by any person residing without the Territory, or subject to any legal disability, the court may appoint a proper person who shall give bonds with sufficient surety or sureties, for the faithful execution of his trust, and who may represent in court the person disqualified or absent as aforesaid, when the same proceeding shall be had in reference to the appraisement of the premises to be taken, and with the same effect as has been already described. And the title of the company to the land taken by virtue of this section shall not be affected nor impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case it shall be necessary for the said company to enter upon lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purpose of its said railroad, and may institute proceedings in the manner described for the purpose of ascertaining the value of, and acquiring a title to, the same; and the court may determine the kind of notice to be served on such owner or owners, and may in its discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or nonappearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred. It shall be competent for the legal guardian of any infant, or any other person under guardianship, to agree with the said company as to damages sustained by reason of the taking of any lands of any such person under disability, as aforesaid, for the use as aforesaid; and upon such agreement being made, and approved by the court having supervision of the official acts of said guardian, and said guardian shall have full power to make and execute a conveyance thereof to the said company which shall vest the title thereto in the said company.

July 2, 1864, c. 216, § 3, 13 Stat. 357; May 14, 1898, c. 299, § 4, 30 Stat. 410.

Repeal

*Section repealed by Pub.L. 94-579, Title VII, § 706(a), Oc
1976, 90 Stat. 2793, effective on and after Oct. 21, 1976, insofa
applicable to the issuance of rights-of-way over, upon, under
through the public lands and lands in the National Forest Sy*

Codification. The first sentence of this section to the colon is from section 4 of Act May 14, 1898, which, as originally enacted, provided that the condemnation might be made in accordance with section 3 of Act July 2, 1864. The remainder of this section is from section 3 of Act July 2, 1864, incorporated herein for convenience of reference. The proviso of
section 4 of Act May 14, 189
fied to section 942-4 of this title.

Savings Provisions. Repeal b
94-579 insofar as applicable t
ances of rights-of-way not to be
as terminating any valid lea
patent, etc., existing on Oct. 2
note under section 1701 of this

§ 942—4. Same; filing preliminary survey, map and profi

Any company mentioned in sections 687a, 687a—2 to 687a
942—1 to 942—9 of this title and sections 607a and 615a of
by filing with the Secretary of the Interior a preliminary actu
and plat of its proposed route, shall have the right at any tim
one year thereafter to file the map and profile of definite loc
such preliminary survey and plat shall during the said perio
year from the time of filing the same have the effect to rende
lands on which said preliminary survey and plat shall pass n
the right of way mentioned in section 942—3 of this title.

May 14, 1898, c. 299, § 4, 30 Stat. 410.

Repeal

*Section repealed by Pub.L. 94-579, Title VII, § 706(a), Oc
1976, 90 Stat. 2793, effective on and after Oct. 21, 1976, insofa
applicable to the issuance of rights-of-way over, upon, under
through the public lands and lands in the National Forest Sy*

Codification. Section is comprised of the proviso of section 4 of Act May 14, 1898. The remainder of section 4 of Act May 14, 1898, is classified to section 942—3 of this title.

Savings Provisions. Repeal by Pub.L. 94-579 insofar as applicable to the issuance of rights-of-way not to be construed as terminating any valid lease, permit,
patent, etc., existing on Oct. 2
note under section 1701 of this

**Extension of Time to Com
road.** The time of the Wes
Construction Company to c
the provisions of this section
942—6 of this title, in acquirin
pleting its railroad, was exten
April 8, 1904, c. 1163, 33 Stat. 1

§ 942—5. Same; filing map and profile of road section;
of rights; reversion of grant

Any company desiring to secure the benefits of sections 687a
to 687a—6, and 942—1 to 942—9 of this title and sections
615a of Title 16, shall, within twelve months after filing the p
map of location of its road as hereinbefore prescribed, whe
surveyed or unsurveyed lands, file with such officer as the Se
the Interior may designate of the land office for the district w
land is located a map and profile of at least a twenty-mile sec
road or a profile of its entire road if less than twenty miles, a
fixed; and shall thereafter each year definitely locate and f
of such location as aforesaid of not less than twenty miles a
its line of road until the entire road has been thus definit
and upon approval thereof by the Secretary of the Interior
shall be noted upon the records of said office, and thereaft
lands over which such right of way shall pass shall be dispo
ject to each right of way: *Provided*, That if any section o
shall not be completed within one year after the definite loca
section so approved, or if the map of definite location be not f
one year as herein required, or if the entire road shall not be
within four years from the filing of the map of definite location
herein granted shall be forfeited as to any such uncomplete
said road, and thereupon shall revert to the United States wit
action or declaration, the notation of such uncompleted secti

Attachment C -

secutive miles of the road mentioned in the foregoing section, in the manner provided for other roads mentioned in this act, and the act to which this is an amendment, the President of the United States shall appoint three commissioners to examine and report to him in relation thereto; and if it shall appear to him that twenty miles of said road have been completed as required by this act, then, upon certificate of said commissioner[s] to that effect, patents shall issue conveying the right and title to said lands to said company on each side of said road, as far as the same is completed, to the amount aforesaid; and such examination, report, and conveyance, by patents, shall continue from time to time, in like manner, until said road shall have been completed. And the President shall appoint said commissioners, fill vacancies in said commission, as provided in relation to other roads mentioned in the act to which this is an amendment. And the said company shall be entitled to all the privileges and immunities granted to the Hannibal and Saint Joseph's Railroad Company by the said last-mentioned act, so far as the same may be applicable: *Provided*, That no government bonds shall be issued to the said Burlington and Missouri River Railroad Company to aid in the construction of said extension of its road: *And provided, further*, That said extension shall be completed within the period of ten years from the passage of this act.

Patents to issue.

Proviso.

SEC. 21. *And be it further enacted*, That before any land granted by this act shall be conveyed to any company or party entitled thereto under this act, there shall first be paid into the treasury of the United States, the cost of surveying, selecting, and conveying the same, by the said company or party in interest, as the titles shall be required by said company, which amount shall, without any further appropriation, stand to the credit of the proper account, to be used by the commissioner of the general land-office for the prosecution of the survey of the public lands along the line of said road, and so from year to year until the whole shall be completed, as provided under the provisions of this act.

Cost of surveying, &c., to be paid before conveyances are made.

SEC. 22. *And be it further enacted*, That congress may, at any time, alter, amend, or repeal this act.

This act may be altered, &c.

APPROVED, July 2, 1864.

CHAP. CCXVII. — *An Act granting Lands to aid in the Construction of a Railroad and Telegraph Line from Lake Superior to Puget's Sound, on the Pacific Coast, by the Northern Route.*

July 2, 1864.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Richard D. Rice, John A. Poore, Samuel P. Strickland, Samuel C. Fessenden, Charles P. Kimball, Augustine Haines, Edwin R. W. Wiggin, Anson P. Morrill, Samuel J. Anderson, of Maine; Willard Sears, I. S. Withington, Josiah Perham, James M. Becket, A. W. Banfield, Abiel Abbott, John Newell, Austin L. Rogers, Nathaniel Greene, jnr., Oliver Frost, John A. Bass, John O. Bresbrey, George Shiverick, Edward Tyler, Filander J. Forristall, Ivory H. Pope, of Massachusetts; George Opdyke, Fairley Holmes, John Huggins, Philander Reed, George Briggs, Chauncey Vibbard, John C. Fremont, of New York; Ephraim Marsh, John P. Jackson, jr., of New Jersey; S. M. Felton, John Toy, O. J. Dickey, B. F. Archer, G. W. Cass, J. Edgar Thompson, John A. Green, of Pennsylvania; T. M. Allyn, Moses W. Wilson, Horace Whittaker, Ira Bliss, of Connecticut; Joseph A. Gilmore, Onslow Stearns, E. P. Emerson, Frederick Smyth, William E. Chandler, of New Hampshire; Cyrus Aldrich, H. M. Rice, John McKusick, H. C. Waite, Stephen Miller, of Minnesota; E. A. Chapin, John Gregory Smith, George Merrill, of Vermont; James Y. Smith, William S. Slater, Isaac H. Southwick, Earl P. Mason, of Rhode Island; Seth Fuller, William Kellogg, U. S. Grant, William B. Ogden, William G. Greene, Leonard Sweat, Henry W. Blodgett, Porter Sheldon, of Illinois; J. M. Winchell, Elsworth Cheesebrough, James S. Emery, of Kansas; Richard

Northern Pacific Railroad Company incorporated.

Names of corporators.

now Burlington Northern

Northern Pacific Railroad Company.

F. Perkins, Richard Chenery, Samuel Brannan, George Rowland, Henry Platt, of California; William F. Mercer, James W. Brownley, of Virginia; John H. B. Latrobe, W. Prescott Smith, of Maryland; Greenbury Slack, A. J. Boreman, of West Virginia; Thomas E. Bramlette, Frank Sherin, of Kentucky; John Brough, John A. Bingham, Oran Follett, John Gardner, S. S. L'Hommedieu, Harrison G. Blake, Philo Chamberlin, of Ohio; John A. Duncan, Samuel M. Harrington, of Delaware; Thomas A. Morris, Jesse L. Williams, of Indiana; Samuel L. Case, Henry L. Hall, David H. Jerome, Thomas D. Gilbert, C. A. Trowbridge, of Michigan; Edward H. Broadhead, Alexander Mitchell, Benjamin Ferguson, Levi Sterling, —— Marshal, of Wisconsin; J. C. Ainsworth, Orlando Humason, H. W. Corbett, Henry Failling, of Oregon; J. B. S. Todd, M. K. Armstrong, J. Shaw Gregory, J. Le Barge, of Dakota Territory; John Mullan, Anson G. Henry, S. D. Smith, Charles Terry, of Washington Territory; H. W. Starr, Platt Smith, Nixon Denton, William Leighton, B. F. Allen, Reuben Noble, John L. Davies, of Iowa; Willard P. Hall, George R. Smith, H. Gayle King, John C. Sergeant, of Missouri; William H. Wallace, of Idaho Territory; J. H. Lathrop, Henry D. Cooke, H. E. Merrick, of the District of Columbia, and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed and in law, by the name, style, and title of the "Northern Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal.

Powers, &c.

May lay out, &c., a railroad and telegraph line.

And said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, namely, beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States, on a line north of the forty-fifth degree of latitude to some point on Puget's Sound, with a branch, via the valley of the Columbia River, to a point at or near Portland, in the State of Oregon, leaving the main trunk-line at the most suitable place, not more than three hundred miles from its western terminus; and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth.

Capital stock.

The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the by-laws of said corporation shall provide.

Commissioners.

Quorum.

First meeting of commissioners.

The persons hereinbefore named are hereby appointed commissioners, and shall be called the board of commissioners of the "Northern Pacific Railroad Company," and fifteen shall constitu[t]e a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Melodeon hall, in the city of Boston, at such time as any five commissioners herein named from Massachusetts shall appoint, not more than three months after the passage of this act, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Philadelphia, Cincinnati, Milwaukee, and Chicago, once a week at least four weeks previous to the day of meeting.

Officers, &c.

Said board shall organize by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said board shall in like manner call all

Meetings.

Books of subscription.

First meeting of subscribers to stock.

Directors.

Inspectors of election.

Commissioners to deliver to directors.

Annual meetings.

other meetings, naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times, and in such principal cities or other places in the United States, as they, or a quorum of them, shall determine, within six months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as twenty thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each state in which subscription books have been opened, at least fifteen days previous to to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect by ballot thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and, in case of their absence or inability, any two of the officers of said board, shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, treasurer, and secretary, shall then deliver over to said directors all the properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners, and the officers previously appointed by them, shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen) and for the transaction of business shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Right of way.

Materials for construction.

Indian titles to be extinguished.

SEC. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to said "Northern Pacific Railroad Company," its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands, adjacent to the line of said road, material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary ground for station buildings, workshops, depots, machine shops, switches, side tracks, turn-tables, and water-stations; and the right of way shall be exempt from taxation within the territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the said Indians, the Indian titles to all lands falling under the operation of this act, and acquired in the donation to the [road] named in this bill.

Grant of public lands.

SEC. 3. *And be it further enacted*, That there be, and hereby is, granted to the "Northern Pacific Railroad Company," its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any state, and whenever on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from preëmption, or other claims or rights, at the time the line of said road is definitely fixed, and a plat thereof filed in the office

Lands in lieu of those reserved, &c.

Proviso.

Mineral lands excluded.

of the commissioner of the general land-office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or preëmpted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections: *Provided*, That if said route shall be found upon the line of any other railroad route to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided, further*, That the railroad company receiving the previous grant of land may assign their interest to said "Northern Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first section of this act: *Provided, further*, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands, in odd numbered sections, nearest to the line of said road may be selected as above provided: *And provided, further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided, further*, That no money shall be drawn from the treasury of the United States to aid in the construction of the said "Northern Pacific Railroad."

Commissioners.

Patents.

Proviso.

Sec. 4. *And be it further enacted*, That whenever said "Northern Pacific Railroad Company" shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial, and workmanlike manner, as in all other respects required by this act, the commissioners shall so report to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands, situated opposite to, and coterminous with, said completed section of said road; and, from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid: *Provided*, That not more than ten sections of land per mile, as said road shall be completed, shall be conveyed to said company for all that part of said railroad lying east of the western boundary of the State of Minnesota, until the whole of said railroad shall be finished and in good running order, as a first-class railroad, from the place of beginning on Lake Superior to the western boundary of Minnesota: *Provided, also*, That lands shall not be granted under the provisions of this act on account of any railroad, or part thereof, constructed at the date of the passage of this act.

Railroad to be constructed in, &c.

Gauge.

Telegraph line.

Sec. 5. *And be it further enacted*, That said Northern Pacific Railroad shall be constructed in a substantial and workmanlike manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turnouts, stations, and watering places, and all other appurtenances, including furniture, and rolling stock, equal in all respects to railroads of the first class, when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said
charge the governm

transportation and telegraphic service. And it shall be the duty of the Northern Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any territory or state in which the same may be situated, to form running connections with it, on fair and equitable terms.

Other roads may form connections.

Lands on both sides of road to be surveyed, &c.

land grants

Sec. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road, after the general route shall be fixed, and as fast as may be required by the construction of said rail road; and the odd sections of land hereby granted shall not be liable to sale, or entry, or preëmption before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting preëmption rights, and the acts amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same are hereby, extended to all other lands on the line of said road, when surveyed, excepting those hereby granted to said company. And the reserved alternate sections shall not be sold by the government at a price less than two dollars and fifty cents per acre, when offered for sale.

1841, ch. 16.
Vol. v. p. 453.

1862, ch. 75.
Vol. xii. p. 392.

Company may take lands necessary for its road.

eminent domain power
and right of way

Sec. 7. *And be it further enacted*, That the said "Northern Pacific Railroad Company" be, and is hereby, authorized and empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width two hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, encumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed, upon application by either party, to any court of record in any of the territories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict, increasing or diminishing, as the case may be, the award of the commissioners, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, of a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and of the right to use and occupy the same for the construction, maintenance, and operation of said road. And in case any

Damages, how determined.

Appeal from assessment.

Attachment D

successors, by the name and title aforesaid, shall be capable in law to sue and be sued, plead and be impleaded, answer and be answered unto, defend and be defended, in all or any courts of justice, and before all and any judges, officers, or persons whatsoever, in all and singular actions, matters, or demands whatsoever.

Meetings, by-laws, &c.

SEC. 3. *And be it further enacted*, That the said corporation shall have power to hold stated meetings; to establish and put into execution, alter or abolish such by-laws, rules, and regulations as to them shall seem most conducive to the interests of the society: *Provided*, That the same shall not be contrary to the laws of the United States.

Corporation not to issue notes, &c. as currency.

SEC. 4. *And be it further enacted*, That nothing in this act shall be so construed as to authorize the said corporation to issue any note, token, device, or other evidence of debt to be used as a currency.

Act may be altered, &c.

SEC. 5. *And be it further enacted*, That this act may be altered or repealed at the pleasure of the Congress.

APPROVED, July 27, 1866.

July 27, 1866.

CHAP. CCLXXVIII. — *An Act granting Lands to aid in the Construction of a Railroad and Telegraph Line from the States of Missouri and Arkansas to the Pacific Coast.*

Atlantic and Pacific Railroad Company incorporated.

Corporators.

Santa Fe RR

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That John B. Brown, Anson P. Morrill, Samuel F. Hersey, William G. Crosby, Samuel E. Spring, Samuel P. Dinsmore, of Maine; N. S. Upham, Frederick Smyth, Onslow Stearns, S. G. Griffin, William E. Chandler, of New Hampshire; T. W. Parks, H. H. Baxter, John Gregory Smith, A. P. Lyman, of Vermont; Walter S. Burges, William S. Slater, Stephen Harris, Thomas P. Shepard, of Rhode Island; William Merritt, Alexander H. Bullock, George L. Stearns, Genery Twitchell, Charles H. Warren, Chester W. Chapin, of Massachusetts; John Boyd, Robert C. Wetmore, John T. Wait, Cyrus Northrop, of Connecticut; Solon Humphreys, J. Bigler, Homer Ramsdell, Isaac H. Knox, John A. C. Gray, Daniel L. Ross, A. V. Stout, M. K. Jessup, R. E. Fenton, E. L. Fancher, J. C. Fremont, James Hoy, Jesse M. Bolles, Edward Gilbert, James P. Robinson, Oliver C. Billings, of New York; Charles Bachelor, John Edgar Thompson, Morton McMichael, T. Haskins Du Puy, Thomas A. Scott, Charles Rickettson, William Lyon, George W. Cass, Levi Parsons, of Pennsylvania; Charles Knap, J. L. N. Stratton, James B. Dayton, Robert F. Stockton, Alexander G. Cattell, A. W. Markley, of New Jersey; John W. Garrett, Charles J. M. Gwinn, Robert Fowler, Jacob Tome, Thomas M. Lanahan, of Maryland; Charles J. Dupont, Henry Ridgley, Andrew C. Gray, Nat. Smythers, of Delaware; Bellamy Storer, George B. Senter, William Baker, Samuel Galloway, David Tod, Charles Anderson, Bird B. Chapman, Edward Sturgis, Israel Dille, of Ohio; Edwin Peck, William D. Griswold, James P. Luse, Samuel E. Perkins, Conrad Baker, of Indiana; Richard J. Oglesby, N. B. Judd, Samuel A. Buckmaster, D. L. Phillips, L. P. Sanger, of Illinois; Eber B. Ward, Omar D. Conger, Nathaniel W. Brooks, Alexander H. Morrison, of Michigan; Z. G. Simmons, Alexander Mitchell, J. J. Williams, G. A. Thompson, J. J. R. Pease, John H. Hersey, of Wisconsin; Henry A. Smith, Sherman Finch, William Mitchell, R. F. Crowell, L. F. Hubbard, E. F. Drake, of Minnesota; Lyman Cook, Platt Smith, Jacob Butler, Henry L. Reid, Hoyt Sherman, of Iowa; William G. Brownlow, of Tennessee; Thomas C. Fletcher, B. H. Bonner, John M. Richardson, Emil Pretorious, E. W. Fox, R. J. McElheny, Charles H. Howland, Madison Miller, George W. Fishback, T. J. Hubbard, George Knapp, Charles K. Dickson, A. G. Braun, G. L. Hewitt, P. A. Thompson, James W. Thomas, Charles E. Moss, Edward Walsh, A. R. Easton, Truman J. Horner, J. B. Eads, D. R. Garrison, W. A. Kayser, George P. Robinson, of Missouri; Thomas E. Bramlette, Other meetings, how called.

Commissioners to open books for subscriptions to stock.

When and how first meeting of subscribers to stock to be called.

Directors.

Each share to have a vote.

Inspectors of election.

Commissioners to deliver to directors all moneys, books, &c. and their duties to cease.

Annual meetings of corporation.

said boards shall, in like manner, call all other meetings, naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities or other places in the United States as they or a quorum of them shall determine, within twelve months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as ten thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been opened, at least fifteen days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect, by ballot, thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and in case of their absence or inability any two of the officers of said board, shall act as inspectors of said election, and shall certify, under their hands, the names of the directors elected at said meeting. And the said commissioners, treasurer, and secretary shall then deliver over to said directors all the moneys, properties, subscription books, and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers, (when they are to be chosen,) and for the transaction of business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Right of way granted through public lands for construction of railroad and telegraph.

Materials for construction.

Extent of grant of right of way.

Right of way exempt from taxation.

Indian title to be extinguished.

right of way

Sec. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to the said Atlantic and Pacific Railroad Company, its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power, and authority is hereby given to said corporation to take from the public lands adjacent to the line of said road material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of one hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary grounds for station-buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations; and the right of way shall be exempt from taxation within the Territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the Indians, and only by their voluntary cession, the Indian title to all lands falling under the operation of this act and acquired in the donation to the road named in the act.

Public lands granted to the corporation to aid in the construction of railroad and telegraph.

land grant

Sec. 3. *And be it further enacted*, That there be, and hereby is, granted to the Atlantic and Pacific Railroad Company, its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway and its branches, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights, at the time the line of said road is designated by a plat thereof, filed in the office of the commissioner of the general land office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections, and not including the reserved numbers: *Provided*, That if said route shall be found upon the line of any other railroad route, to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: *Provided further*, That the railroad company receiving the previous grant of land may assign their interest to said "Atlantic and Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first and seventeenth sections of this act: *Provided further*, That all mineral lands be and the same are hereby excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands in odd-numbered sections nearest to the line of said road, and within twenty miles thereof, may be selected as above provided: *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal: *And provided further*, That no money shall be drawn from the treasury of the United States to aid in the construction of the said "Atlantic and Pacific Railroad."

If any of granted lands have been sold, or reserved, &c. other lands may be selected in lieu thereof.

If route is found to be upon the line of any other road to which lands have been granted, amount of former grant to be deducted.

Road having previous grant may assign to, or unite with, this company.

Mineral lands excluded from operation of this act.

The word "mineral" not to include "iron or coal."

No money to be drawn from treasury to aid in construction of this road.

Sec. 4. *And be it further enacted*, That whenever said Atlantic and Pacific Railroad Company shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, who shall be paid a reasonable compensation for their services by the company, to be determined by the Secretary of the Interior; and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial and workmanlike manner, as in all other respects required by this act, the commissioners shall so report under oath, to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands situated opposite to and coterminous with said completed section of said road. And from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid.

Upon report of commissioners under oath that twenty-five consecutive miles are completed, patents for coterminous lands to issue to company;

and so as to any other twenty-five consecutive miles.

Sec. 5. *And be it further enacted*, That said Atlantic and Pacific Railroad shall be constructed in a substantial and workmanlike manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turn-outs, stations, and watering-places, and all other appurtenances, including furniture and rolling stock, equal in all respects to railroads of the first class when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: *Provided*, That the said company shall not charge the government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Atlantic and Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature

Railroad how to be constructed.

Rails.

Gauge.

Telegraph line.

Rates for service.

Other railroads may form running connections with it.

of any Territory or State in which the same may be situated, to form running connections with it, on fair and equitable terms.

Lands on both sides of line of route of railroad.

Odd sections not liable to sale, or entry or pre-emption.

Provisions of pre-emption and homestead acts extended to lands on line of road.

1841, ch. 16, § 10. Vol. v. p. 455.

1862, ch. 75. Vol. xii. p. 392.

Sec. 6. *And be it further enacted*, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale or entry, or pre-emption, before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting pre-emption rights, and the acts amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same are hereby, extended to all other lands on the line of said road when surveyed, excepting those hereby granted to said company.

Company may take any land necessary for working of road.

Width.

eminent domain

Lands for stations, &c.

Trees.

Damages, how to be determined.

When lands are to be deemed taken by the company.

Appeal to a jury.

Appellant to give bonds.

Costs.

Payment into court of a sum equal to final award to vest title of land in company.

Proceedings where lands taken are held by persons under disability.

Sec. 7. *And be it further enacted*, That the said Atlantic and Pacific Railroad Company be, and is hereby, authorized and empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turn-outs, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, encumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed upon application by either party to any court of record in any of the Territories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict more favorable, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, of a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and the right to use and occupy the same for the construction, maintenance, and operation of said road. And in case any of the lands to be taken as aforesaid shall be held by an infant, femme covert, non compos, insane person, or persons residing without the Territory within which the lands to be taken lie, or persons subjected to any legal disability, the court may appoint a guardian, for any party under any disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust; and who may represent in court the person disqualified, as aforesaid, from appearing, when the same proceedings shall be had in reference to the appraisement of the premises to be taken for the use of said company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described, for the purpose of ascertaining the value of, and of acquiring a title to, the same; but the judge of the court hearing said suit shall determine the kinds of notice to be served on such owner or owners, and he may in his discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred.

Proceedings where the interest in the land is for a term of years, &c.;

where lands are unoccupied and without apparent owner.

SEC. 8. *And be it further enacted*, That each and every grant, right, and privilege herein are so made and given to and accepted by said Atlantic and Pacific Railroad Company, upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the main line of the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-eight.

Rights and privileges of this act are granted and accepted, upon conditions, &c.

Work, when to be commenced and when completed.

SEC. 9. *And be it further enacted*, That the United States make the several conditional grants herein, and that the said Atlantic and Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions hereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States may do any and all acts and things which may be needful and necessary to insure a speedy completion of the said road.

If conditions are broken and continue for one year, the United States may complete the road.

SEC. 10. *And be it further enacted*, That all people of the United States shall have the right to subscribe to the stock of the Atlantic and Pacific Railroad Company until the whole capital named in this act of incorporation is taken up by complying with the terms of subscription.

Who may subscribe to stock.

SEC. 11. *And be it further enacted*, That said Atlantic and Pacific Railroad, or any part thereof, shall be a post route and military road, subject to the use of the United States for postal, military, naval, and all other government service, and also subject to such regulations as Congress may impose restricting the charges for such government transportation.

Railroad to be a post route and military road.

Charges for government transportation.

SEC. 12. *And be it further enacted*, That the acceptance of the terms, conditions, and impositions of this act by the said Atlantic and Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the direction of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be deposited in the office of the Secretary of the Interior.

Acceptance of these conditions by company to be in writing, and within two years.

SEC. 13. *And be it further enacted*, That the directors of said company shall make and publish an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, a copy of which shall be deposited in the office of said Secre-

Annual report.

Benjamin F. Harding, of Oregon; William Bunn, junior, John Catlin, Levi Sterling, John Thompson, Elihu L. Phillips, Walter D. McIndoe, T. B. Stoddard, E. H. Brodhead, A. H. Virgin, of Wisconsin; Charles Paine, Thomas A. Morris, David C. Branham, Samuel Hanna, Jonas Votaw, Jesse L. Williams, Isaac C. Elston, of Indiana; Thomas Swan, Chauncey Brooks, Edward Wilkins, of Maryland; Francis R. E. Cornell, David Blakely, A. D. Seward, Henry A. Swift, Dwight Woodbury, John McKusick, John R. Jones, of Minnesota; Joseph A. Gilmore, Charles W. Woodman, of New Hampshire; W. H. Grimes, J. C. Stone, Chester Thomas, John Kerr, Werter R. Davis, Luther C. Challiss, Josiah Miller, of Kansas; Gilbert C. Monell and Augustus Kountz, T. M. Marquette, William H. Taylor, Alvin Saunders, of Nebraska; John Evans, of Colorado; together with five commissioners to be appointed by the Secretary of the Interior, and all persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic in deed and in law, by the name, style, and title of "The Union Pacific Railroad Company;" and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal; and the said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph, with the appurtenances, from a point on the one hundredth meridian of longitude west from Greenwich, between the south margin of the valley of the Republican River and the north margin of the valley of the Platte River, in the Territory of Nebraska, to the western boundary of Nevada Territory, upon the route and terms hereinafter provided, and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one hundred thousand shares of one thousand dollars each, which shall be subscribed for and held in not more than two hundred shares by any one person, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named, together with those to be appointed by the Secretary of the Interior, are hereby constituted and appointed commissioners, and such body shall be called the Board of Commissioners of the Union Pacific Railroad and Telegraph Company, and twenty-five shall constitute a quorum for the transaction of business. The first meeting of said board shall be held at Chicago at such time as the commissioners from Illinois herein named shall appoint, not more than three nor less than one month after the passage of this act, notice of which shall be given by them to the other commissioners by depositing a call thereof in the post office at Chicago, post paid, to their address at least forty days before said meeting, and also by publishing said notice in one daily newspaper in each of the cities of Chicago and Saint Louis. Said board shall organize by the choice from its number of a president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities in the United States as they or a quorum of them shall determine, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as two thousand shares shall be in good faith subscribed for, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each State in which subscription books have been

Name of corporation.

Common seal.

Power of corporation.

Terminal of railroad and telegraph.

Capital stock.

Shares.

Board of commissioners.

Quorum.

First meeting.

1862, ch. 134.
Post, p. 532.

Organization.

Officers of the board.

Subscription books.

First meeting of subscribers to stock.

Directors.

Vote.

Stockholders to constitute the body corporate.

Directors on the part of the government.

President, vice-president, treasurer, and secretary.

Who may be directors.

By-laws.

Directors may appoint engineers, agents, &c.

Term of office of president, directors, &c.

Quorum of directors.

Bonds of secretary and treasurer.

Term of office.

Annual meetings.

opened at least thirty days previous to the day of meeting, and such subscribers as shall attend the meeting so called, either in person or by proxy, shall then and there elect by ballot not less than thirteen directors for said corporation; and in such election each share of said capital shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, treasurer, and secretary shall then deliver over to said directors all the properties, subscription books and other books in their possession, and thereupon the duties of said commissioners and the officers previously appointed by them shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. At the time of the first and each triennial election of directors by the stockholders two additional directors shall be appointed by the President of the United States, who shall act with the body of directors, and to be denominated directors on the part of the government; any vacancy happening in the government directors at any time may be filled by the President of the United States. The directors to be appointed by the President shall not be stockholders in the Union Pacific Railroad Company. The directors so chosen shall, as soon as may be after their election, elect from their own number a president and vice-president, and shall also elect a treasurer and secretary. No person shall be a director in said company unless he shall be a bona fide owner of at least five shares of stock in the said company, except the two directors to be appointed by the President as aforesaid. Said company, at any regular meeting of the stockholders called for that purpose, shall have power to make by-laws, rules, and regulations as they shall deem needful and proper, touching the disposition of the stock, property, estate, and effects of the company, not inconsistent herewith, the transfer of shares, the term of office, duties, and conduct of their officers and servants, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of this act, and to do all acts and things touching the location and construction of said road and telegraph. Said directors may require payment of subscriptions to the capital stock, after due notice, at such times and in such proportions as they shall deem necessary to complete the railroad and telegraph within the time in this act prescribed. Said president, vice-president, and directors shall hold their office for three years, and until their successors are duly elected and qualified, or for such less time as the by-laws of the corporation may prescribe; and a majority of said directors shall constitute a quorum for the tranaction of business. The secretary and treasurer shall give such bonds, with such security, as the said board shall from time to time require, and shall hold their offices at the will and pleasure of the directors. Annual meetings of the stockholders of the said corporation, for the choice of officers (when they are to be chosen) and for the transaction of annual business, shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Right of way for road and telegraph.

Materials for construction.

SEC. 2. *And be it further enacted*, That the right of way through the public lands be, and the same is hereby, granted to said company for the construction of said railroad and telegraph line; and the right, power, and authority is hereby given to said company to take from the public lands adjacent to the line of said road, earth, stone, timber, and other materials for the construction thereof; said right of way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass over the public lands, including all necessary grounds for stations, buildings, workshops, and depots, machine shops, switches, side tracks, turntables, and water stations. The United States

Act of	Chapter	Section	Statute at Large	43 U.S. Code
1. Mar. [illegible]	[illegible]		[illegible]	[illegible]
2. June [illegible]	[illegible]	1	[illegible]	[illegible]
June [illegible]	[illegible]	1	[illegible], title I.	
June [illegible]	[illegible]	1	[illegible]	
July [illegible]	P.L. [illegible]		[illegible]	[illegible]
3. Aug. [illegible]	[illegible]		[illegible]	[illegible]
4. Mar. [illegible]	[illegible]	24 proviso only.	[illegible]	[illegible]
June [illegible]	J. Res. [illegible]		[illegible]	
5. June [illegible]	[illegible]		[illegible]	[illegible]
6. Revised Statutes [illegible]				[illegible]
Revised Statutes [illegible]				[illegible]
7. June [illegible]	[illegible]		[illegible]	[illegible], 1164.
8. Jan. [illegible]	[illegible]		[illegible]	[illegible]
9. May [illegible]	[illegible]		[illegible]	[illegible]
10. Revised Statutes [illegible]				[illegible]
Revised Statutes [illegible]				[illegible]
Revised Statutes [illegible]				[illegible]
11. July [illegible]	P.L. [illegible]	[illegible](a), [illegible](a), [illegible]	[illegible]	[illegible], [illegible], [illegible]
12. Sept. [illegible]	P.L. [illegible]		[illegible]	[illegible]
13. July [illegible]	[illegible]	1, 2	[illegible]	

REPEAL OF LAWS RELATING TO RIGHTS-OF-WAY

Sec. 706. (a) Effective on and after the date of approval of this Act, R.S. 2477 (43 U.S.C. 932) is repealed in its entirety and the following statutes or parts of statutes are repealed insofar as they apply to the issuance of rights-of-way over, upon, under, and through the public lands and lands in the National Forest System:

Effective date.

Act of	Chapter	Section	Statute at Large	43 U.S. Code
Revised Statutes [illegible]				[illegible]
The following words only: "and the right-of-way for the construction of ditches and canals for the purposes herein specified is acknowledged and confirmed; but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage."				
Revised Statutes [illegible]				[illegible]
The following words only: ", or rights to ditches and reservoirs used in connection with such water rights,"				
Feb. [illegible]	[illegible]		[illegible]	[illegible]
Mar. [illegible]	[illegible]	1	[illegible]	[illegible], [illegible] (16 U.S.C. [illegible]).
The following words only: "That in the form provided by existing law the Secretary of the Interior may file and approve surveys and plats of any right-of-way for a wagon road, railroad, or other highway over and across any forest reservation or reservoir site when in his judgment the public interests will not be injuriously affected thereby."				
Mar. [illegible]	[illegible]		[illegible]	[illegible]
May [illegible]	[illegible]	[illegible]	[illegible]	[illegible] to [illegible]
[illegible]	[illegible]		[illegible]	[illegible]
June [illegible]	[illegible]		[illegible]	[illegible]
Mar. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mar. [illegible]	[illegible]	1	[illegible]	
May [illegible]	[illegible]		[illegible]	
Mar. [illegible]	[illegible]		[illegible]	[illegible]
Jan. [illegible]	11		[illegible]	[illegible]
Mar. [illegible]	[illegible]		[illegible]	
Jan. [illegible]	[illegible]		[illegible]	[illegible], [illegible], [illegible]
May [illegible]	[illegible]		[illegible]	
May [illegible]	[illegible]		[illegible]	
Mar. [illegible]	[illegible]	2	[illegible]	
Feb. [illegible]	[illegible]		[illegible]	[illegible] (16 U.S.C. [illegible], [illegible]).
Mar. [illegible]	[illegible]		[illegible]	[illegible] (16 U.S.C. [illegible], [illegible], [illegible]).
Only the last two paragraphs under the subheading "Improvement of the National Forests" under the heading "Forest Service."				
May [illegible]	[illegible]		[illegible]	
May [illegible]	[illegible]		[illegible]	[illegible]
Apr. [illegible]	[illegible]		[illegible]	[illegible]
June [illegible]	[illegible]	1	[illegible]	16 U.S.C. [illegible]
Only the eleventh paragraph under Surveying the public lands.				
July [illegible]	[illegible]	[illegible], [illegible]	[illegible]	7 U.S.C. [illegible]
Sept. [illegible]	[illegible]	1	[illegible]	[illegible]
July [illegible]	Public Law [illegible]		[illegible]	43 U.S.C. [illegible]
Oct. [illegible]	Public Law [illegible]	1-[illegible]	[illegible]	43 U.S.C. [illegible]
Feb. [illegible]	[illegible]	4	[illegible]	16 U.S.C. [illegible]

Benjamin Gratz, C. E. Warren, Lazarus W. Powell, John Mason Brown, Joshua Speed, of Kentucky; Solon Thatcher, Jacob Stotter, William B. Edwards, James G. Blunt, Robert McBratney, of Kansas; Harrison Hagans, James Cook, Robert Crangle, Benjamin H. Smith, of West Virginia; Lorenzo Sherwood, A. J. Hamilton, of Texas; William Gilpin, Henry C. Leach, of Colorado; Phinneas Banning, Timothy G. Phelps, William B. Carr, Edward F. Beale, Fred. F. Lowe, Benj. B. Redding, B. W. Hathaway, Leonidas Haskell, Frederick Billings, of California; W. S. Ladd, J. R. Moores, Walter Monteith, John Kelly, B. F. Dowell, of Oregon; James L. Johnson, Henry Connelly, Franciscus Perea, of New Mexico; J. H. Mills, A. P. K. Safford, E. S. Davis, of Nevada; King S. Woolsey, William H. Hardy, Coles Bashford of Arizona; Henry D. Cooke, of the District of Columbia; and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed and in law, by the name, style, and title of the "Atlantic and Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, and construct, furnish, maintain, and enjoy, a continuous railroad and telegraph line, with the appurtenances, namely: Beginning at or near the town of Springfield, in the State of Missouri, thence to the western boundary line of said State, and thence by the most eligible railroad route as shall be determined by said company to a point on the Canadian River, thence to the town of Albuquerque, on the River Del Norte, and thence, by way of the Agua Fria, or other suitable pass, to the head-waters of the Colorado Chiquito, and thence, along the thirty-fifth parallel of latitude, as near as may be found most suitable for a railway route, to the Colorado River, at such point as may be *be* selected by said company for crossing; thence by the most practicable and eligible route, to the Pacific. The said company shall have the right to construct a branch from the point at which the road strikes the Canadian River eastwardly, along the most suitable route as selected, to a point in the western boundary line of Arkansas, at or near the town of Van Buren. And the said company is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act, as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the laws of said corporation shall provide. The persons hereinbefore named are hereby appointed commissioners, and shall be called the board of commissioners of the "Atlantic and Pacific Railroad Company;" and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Turner Hall, in the city of Saint Louis, on the first day of October, anno Domini eighteen hundred and sixty-six, or at such time within three months thereafter as any ten commissioners herein named from Missouri shall appoint, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Cincinnati, Saint Louis, Memphis, and Nashville, once a week for at least four weeks previous to the day of meeting. Said board shall organize by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof, as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of

Corporators.

Name of corporation, &c.

Seal.

Corporation may locate and construct railroad and telegraph line.

Termini and route.

Branch eastwardly to near Van Buren, Arkansas.

Powers and privileges.

Capital stock.

Persons before named appointed board of commissioners.

Quorum.

First meeting of commissioners.

Notice.

Organization of board and officers.

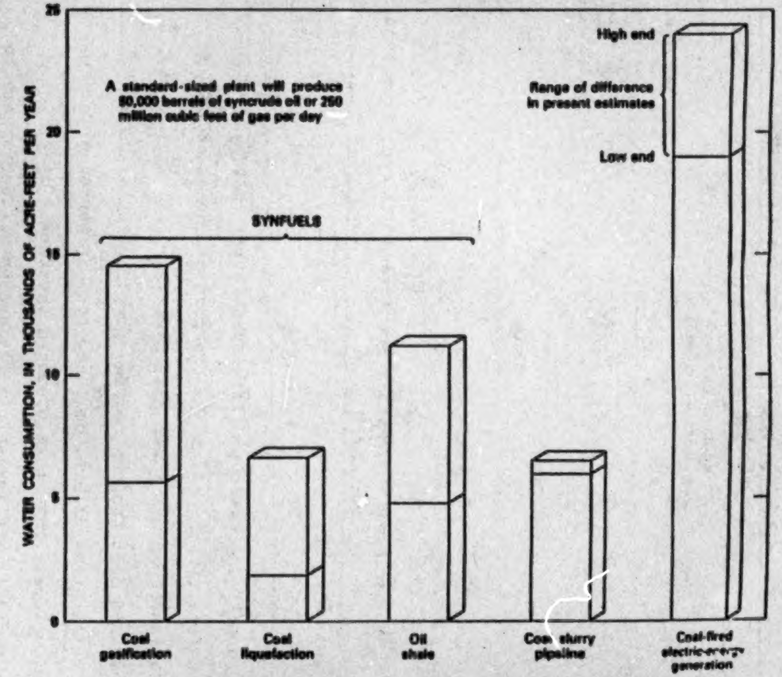
Treasurer to give bonds.

Secretary to be sworn.

The graph illustrates that estimated water consumption in a coal-gasification plant is about twice that for a coal-liquefaction plant using the same input of coal. Water consumption in the above-ground production of shale oil is generally estimated to be between these values. However, developments of in-situ technology may soon lower the requirements for shale oil production.

From a resource development viewpoint, it is interesting to compare the water requirements for producing synfuels from coal with those for processing equivalent inputs of coal in other ways. For example, in comparison to standard-sized coal conversion plants, there is a low water requirement for transporting coal by slurry pipeline. In contrast, the same coal input would supply a 2,000-MW thermal electric plant and create a water requirement considerably greater than those estimated for producing synfuels.

Synthetic Fuel Development: Earth Science Considerations, U. S. Geological Survey, Dept. of the Interior, Washington, D. C.



ESTIMATED WATER CONSUMPTION FOR PRODUCING USEABLE SYNFUEL PRODUCTS IN STANDARD-SIZED PLANTS (DEFINED ABOVE), AND FOR SLURRY PIPELINE AND ELECTRIC-ENERGY GENERATION HAVING COAL IMPUT EQUIVALENT TO THAT FOR A STANDARD COAL-CONVERSION PLANT.

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January 4, 1982

MEMORANDUM

RE: State Eminent Domain Authority for Interstate Coal Pipelines

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I. INTRODUCTION:

Coal pipelines appear to offer substantial economic and energy benefits for the nation in the form of increased coal transportation capacity, lower coal haulage rates, increased jobs, increased coal production, increased state tax revenues and the facilitation of U.S. coal exports. Experience indicates, however, that most proposed interstate coal pipelines probably are impossible to develop without access to eminent domain authority pursuant to which necessary rights-of-way may be obtained.

Eminent domain authority for coal pipelines may be granted by either the Federal government or by the various states. This memorandum examines the question of whether reliance on State eminent domain authority will pose legal and practical problems for interstate coal pipelines. The analysis in this memorandum is based on an examination of the laws of twenty states that either extend eminent domain authority to coal pipelines or through which interstate coal pipelines are proposed to be built.[1]

II. SUMMARY OF ANALYSIS:

A. State Eminent Domain Authorities

Of the twenty states whose statutes have been examined, ten states specifically extend the power of eminent domain to coal pipelines (Florida, Louisiana, North Carolina, North Dakota, Ohio, Oklahoma, Texas, Utah, West Virginia and Wyoming) although interstate coal pipelines may experience difficulty in relying on several of the statutes; the eminent domain authority of at least three other states may be construed broadly enough to cover coal pipelines (Alabama, Arkansas, and Colorado); and one state specifically denies the power of eminent domain to coal pipelines (Virginia). The eminent domain authorities of these fourteen states will be discussed in Section III of this memorandum.

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[1] Alabama, Arkansas, Colorado, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, Tennessee, Texas, Utah, Virginia, West Virginia and Wyoming.

B. Conditions Imposed on the State Grants of Eminent Domain

1. Public Use and Benefit:

a. Statutory Provisions:

Each state grant of eminent domain, whether for coal pipelines or otherwise, is founded on a determination that the condemnation of private lands that will occur through exercise of the power of eminent domain will be of public use and benefit to the state. In some states, the determination that a proposed coal pipeline is of public use and benefit is delegated to an agency of the state, such as the Public Service Commission (West Virginia), the Corporation Commission (Oklahoma), or the Railroad Commission (Texas), and that determination is binding on the court in condemnation proceedings (Florida). In other instances, the determination that a proposed pipeline is of public use and benefit is left to the courts in condemnation proceedings. (Louisiana, North Dakota, Utah). The statutes of certain states limit the grant of eminent domain to coal pipelines that will engage in an intrastate activity or otherwise provide a direct benefit to the state. (Florida, North Carolina, West Virginia). Obviously, such provisions would present extreme difficulties to interstate coal pipelines that must pass through such states, but will neither gather coal from nor deliver coal to the state, nor even deliver coal to a foreign electric utility company that will provide the state with electricity.

b. Relevant Judicial Decisions:

Decisions of state courts construing the public use requirement have varied considerably, so that there is no consistent definition of that term that applies in all states or in all instances. The principal issue usually faced in these cases is whether and to what degree the private entity using the power of eminent domain must benefit the public within the boundaries of the jurisdiction granting that power.

One case, Shedd v. Northern Indiana Public Service Company, 206 Ind. 35, 188 N.E. 322 (1934), took the view that the state could grant the power of eminent domain to an interstate carrier only if that carrier supplied actual and tangible benefits to citizens of that state. 188 N.E. at 325-26. Accord, Grover Irrigation & Land Company v. Lovella Ditch, Railroad & Irrigation Company, 21 Wyo. 204, 131 P. 43 (1913). The Alabama Supreme Court, too, has emphasized that the public within the territorial confines of the state granting eminent domain authority must benefit in a definite, substantial way from the exercise of that power. Gralapp v. Mississippi Power Company, 280 Ala. 368, 194 So.2d 527 (1967).

There is a broader, more easily satisfied position emerging that permits a finding of public use if the public, or some portion thereof, may gain a potential advantage -- not just an actual benefit -- from an entity granted eminent domain. Montana Power Company v. Bokina, 153 Mont. 390, 457

P.2d 769 (1969). In a landmark decision, the North Dakota Supreme Court appeared to follow this broader principle in granting the power of eminent domain to an electrical transmission company whose power lines originated in the state, but delivered no actual power directly to anyone in North Dakota. Square Butte Electric Cooperative v. Hilken, 244 N.W.2d 519 (N.D. 1976). Although the Square Butte decision has been hailed as the predecessor of a generally accepted, broader interpretation of public use, it was the product of a divided court, and was perhaps also the product of a singular interpretation of unique, rather indirect benefits to the citizens of the state. Neither Square Butte nor any other decision appears to have resolved the considerable uncertainty about the public use requirement, and especially about the nature and substance of benefits that must be rendered to the granting state and its citizens in order to satisfy that requirement.[2/]

[2/] For other state court decisions discussing public use, see, e.g., Dixie Pipeline Co. v. Barry, 227 So.2d 1 (La. App. 1969), Chesapeake & Ohio Ry. Co. v. Herzberg, 166 N.W.2d 652 (Mich. App. 1968), Burger v. City of Beatrice, 147 N.W.2d 784 (Neb. 1967), Clark v. Gulf Power Co., 198 So.2d 368 (Fla. App. 1967), and Black v. Ark. Power & Light Co., 366 S.W.2d 899 (Ark. 1963).

2. Other Conditions Imposed by the Various States:

a. Pipeline Company Incorporated in the State or "Domesticated":

Of the states that grant eminent domain authority to coal pipelines, several require that the pipeline company must either be incorporated in the state (Oklahoma) or domesticated or licensed under the laws of the state (Florida, North Carolina, and Wyoming).

b. State Certification or Common Carrier Regulation:

Several states condition the grant of eminent domain authority on regulation of the pipeline by a state authority or on the pipeline's operation as a common carrier. (Arkansas, Florida, North Carolina, North Dakota, Ohio, Oklahoma, Texas, West Virginia, and Wyoming).

c. Other Findings or Limitations:

Economic Feasibility:

Oklahoma, Florida, Texas

Service to a Utility or a Community in the State:

Florida

Environmental Feasibility:

Florida

Sufficient Water Supply or Prohibition on the Use of State Water Resources:

Florida, Louisiana, Oklahoma, Texas

All Other States on the Pipeline Route Must Adopt Coal Slurry Pipeline Eminent Domain Authority:

Florida

Certain Design, Construction and Operation Limitations:

Texas, Oklahoma

Three-Year Limit on Coal Haulage Contracts:

Texas

"No Economic Detriment to Others":

West Virginia

III. STATE-BY-STATE ANALYSIS OF COAL PIPELINE EMINENT DOMAIN AUTHORITY:

A. States Specifically Granting the Power of Eminent Domain Authority to Coal Pipelines

Florida

In 1979, Florida granted the right of eminent domain to coal pipeline companies. 1979 Fla. Laws c. 79-236, §§ 1, 2; Fla. Stat. Ann. § 361.08 (West). Prior to enactment of this legislation, Florida's eminent domain statutes extended only to natural gas, petroleum, and petroleum product pipeline companies, as well as other public service companies. Fla. Stat. Ann. §§ 361.01 *et seq.* (West).

Section 361.08 grants eminent domain authority to any domestic corporation or foreign corporation licensed to do business in the State, which is organized "for the purpose of supplying any electric utility or utilities; any city, town, or village or the inhabitants thereof; or any community with coal or its derivatives or any mixture or combination thereof by pipeline, and for the purpose of serving as a common carrier . . . thereof . . ." Such companies may exercise this right when it is necessary for the construction, operation, and maintenance of coal plants, pipelines, pumping stations, and other facilities.

The statute limits this right of eminent domain to the taking of the least property interest necessary and requires that the condemned land be used within a period of time established by the court or revert to the prior owner. Pipeline companies that use the Florida eminent domain authority shall be regulated by the Florida Public Service Commission (PSC) unless and to the extent such regulation is preempted by regulation of the Interstate Commerce Commission. The Florida PSC shall determine "the public need for and the economic and environmental feasibility of any proposed coal . . . pipeline," which determination shall be binding on courts in condemnation proceedings.

Contracts for the transportation of coal by pipelines shall be submitted to the Florida PSC for approval and pipeline operators may not charge a rate which is higher than the lowest rate available by "any other common carrier operating in Florida." Fla. Stat. Ann. §§ 350.80 (West).

In addition to the provisions stated above, the Act further stipulates that the Act will not take effect until

> every state in which the coal . . . pipeline will pass en route to Florida has enacted laws granting eminent domain authority to coal . . . pipeline companies . . . and when the appropriate governmental authority has guaranteed . . . that a continuous source of water shall be available for use in said coal . . . pipeline. 1979 Fla. Laws c. 79-236, § 5; Fla. Stat. Ann. § 350.80 note (West).

Obviously, this stipulation could prove to be a major barrier to the exercise of eminent domain authority by an interstate coal pipeline company interested in serving the state of Florida.

Louisiana

Chapter 19, section 2 of the Louisiana Revised Statutes (West) provides that:

> Where a price cannot be agreed upon with the owner, any of the following may expropriate needed property: . . . (9) Any domestic or foreign corporation created for piping and marketing of coal or lignite in whatever form or mixture convenient for transportation within a pipeline as otherwise provided for in R.S. 30:721 through 30:723.

Sections 721 through 724 of Chapter 30 of the Louisiana Revised State Statutes provides that coal pipeline companies that are licensed to operate in Louisiana, in accordance with regulations issued by the Department of Natural Resources, shall have the right to expropriate private property necessary for and incidental to the operation of those pipelines. Additionally, such pipeline companies shall have the authority to construct and operate pipelines along, across, over and under navigable streams, public highways, or other public places, as well as the right to cross railroads or other pipelines. La. Rev. Stat. Ann. § 30:723(A) (West 1981 Supp.)

The statute states that issues of public purpose and necessity for the proposed expropriation are to be judicially determined. La. Rev. Stat. Ann. § 30:723(D) (West 1981 Supp.) Furthermore, if the expropriator fails to construct the pipeline due to the inability to obtain the required state and/or federal permits, he shall have no right to the return of funds paid to the expropriatee, nor is he allowed to use the property for any other purpose. La. Rev. Stat. Ann. § 30:723(E) (West 1981 Supp.)

Section 723(E) provides that the power of expropriation shall not include the right to expropriate Lousiana water for use in transportation of coal by pipelines. The section further provides that no Louisiana water may be used for the transportation of coal or lignite through the pipeline without a determination, following a public hearing, that such use will not be detrimental to the water supply. In the event that a pipeline is authorized to utilize Louisiana water, an annual review of the state water supply is required. Section 723(G) provides that "[w]ater used in the transportation of coal by pipeline to any point in Louisiana shall conform to regulations of the Stream Control Commission and the Department of Natural Resources prior to its discharge . . ."

North Carolina

The general eminent domain section of the North Carolina statute provides:

> The right of eminent domain may, under the provisions of this Chapter, be exercised for the purpose of constructing their . . . pipelines originating in North Carolina for the transportation of . . . coal . . . which are authorized by law and which involve a public use or benefit, by the bodies politic, corporation or persons . . . N.C. Gen. Stat. § 40-2 (1981 Supp.) (emphasis added).

The public utilities section of the North Carolina statutes extends to coal pipeline companies incorporated or domesticated in North Carolina the same rights and powers that are granted to railroads under this section of the statutes. In addition, the public utilities sections provide:

> Nothing herein shall prohibit any such pipeline company granted the right of eminent domain under the laws of this State from extending its pipelines from within this State into another state for the purpose of transporting . . . coal in suspension into this State, nor to prohibit any such pipeline company from conveying or transporting . . . coal in suspension from within this State in another state . . . N.C. Gen. Stat. § 62-190 (1979 Supp.).

The requirement in the eminent domain statute that the pipeline must originate in North Carolina appears to be in conflict with the public utilities provisions. Colonial Pipeline Co. v. Neill 296 N.C. 503, 251 S.E.2d 457 (1979). The North Carolina Supreme Court determined, however, that the phrase "pipelines originating in North Carolina" does not impose a limitation on section 62-190. Nevertheless, the two provisions may limit the exercise of eminent domain authority to those interstate coal pipelines that either obtain coal in North Carolina or deliver coal to North Carolina. Coal pipeline companies operating in North Carolina shall be deemed public utilities and shall be subject to regulation. N.C. Gen. Stat. § 62-190 (1979 Supp.).

North Dakota

Under North Dakota law a company that owns, operates, or manages a pipeline that transports coal is regulated by the North Dakota Public Service Commission as a common pipeline carrier. N.D. Cent. Code § 49-19-01.

A common pipeline carrier is granted the right of eminent domain, the exercise of which is available when "necessary for the construction, maintenance, or authorization of its pipeline." N.D. Cent. Code § 49-19-12. This right is granted only to common pipeline carriers that have filed with the Public Service Commission ("Commission") a notice of acceptance of the provision of Chapter 49. In addition to the establishment of rates and charges for transportation by the Commission, this chapter requires common pipeline carriers to accept, carry or purchase, without discrimination, the oil, coal, or gas of the state or of any person not the owner of a pipeline. N.D. Cent. Code § 49-19-11.

Section 49-19-09 also grants common pipeline carriers rights-of-way along, across, or under any public stream or highway.

Ohio

Section 1723.01 of the Ohio Revised Code (Page) confers upon companies organized, among other reasons, ". . . for transporting natural or artificial gas, petroleum, coal or its derivatives . . . through tubing, pipes or conduits. . . ." the right to appropriate private land "as is deemed necessary" for the laying down of such pipes. Such companies are designated as common carriers and are regulated as such under the laws of the state. Ohio Rev. Code Ann. § 1723.08 (Page).

The Ohio statute specifically excludes the right to appropriate any public way located within a municipal corporation without the municipal corporation's consent. Ohio Rev. Code Ann. § 1723.03 (Page). Furthermore, the right of any single company to appropriate land for laying more than one continuous pipe "does not extend . . . in or through a municipal corporation unless the appropriate legislative authority first consents thereto." Ohio Rev. Code Ann § 1723.02 (Page).

Oklahoma

In 1977 Oklahoma enacted legislation conferring on coal transportation pipeline companies the right of eminent domain. 1977 Okla. Sess. Laws c. 25, §§ 1 et seq. In order to exercise this right and, in fact, to transport coal through the state at all, the corporation must first be licensed by the Oklahoma Corporation Commission. The Commission will only grant a license upon determining that a public need and necessity exists and upon making a showing of economic feasibility for the pipeline. Okla. Stat. Ann. tit. 27, § 7.1 (West).

Additionally, a license will not be issued until the applicant has produced evidence that adequate supplies of water have been acquired to conduct the transportation of coal by pipeline. "The power of eminent domain shall not include the right to take water." Id. The statute forbids the use of "Oklahoma water from any source" for the operation of a coal pipeline within or through the state. Okla. Stat. Ann. tit. 27, § 7.6 (West).

The statute states that foreign corporations organized under the laws of any other state or the United States doing or proposing to do business in Oklahoma "and which shall have become a body corporate pursuant to or in accordance with the laws of this state" may exercise eminent domain power. Okla. Stat. Ann. tit. 27, § 7.1 (West). According to Williams v. Continental Construction Corp., 168 Okl. 510, 34 P.2d 254 (1934), a foreign corporation which properly obtains a license to do business within the state is a "body corporate" within the meaning of the state constitution, thereby entitling the corporation to exercise the right of eminent domain.

In addition to the provisions stated above, the statute contains requirements regarding the siting of the pipeline and the width of the right-of-way. Okla. Stat. Ann. tit. 27 §§ 7.3, 7.4 (West). The Corporation Commission is authorized to promulgate regulations relating to the design, construction, operation and maintenance of coal pipelines in the state and to specify the proper use and disposal of any non-dischargable water. The pipeline shall be considered to be a common carrier under Oklahoma law and any contract to deliver coal in Oklahoma shall set rates for such product or service "at the lowest unit charge, based on the distance from the point of origin to the point of delivery, which it charges any other user of its product or service in any other state." Okla. Rev. Stat. Ann. tit. 27 §§ 7.8, 7.9 (West).

Texas

Under Texas law, a company that owns, operates or manages a pipeline "for the transportation for hire of coal in whatever form" is deemed a common carrier. Tex. Corp. & Assn's Code Ann. tit. 3, § 111.002 (Vernon). Section 111.019 states that common carriers have the right and power of eminent domain and may exercise that right when necessary for the construction, maintenance or operation of a common carrier pipeline.

The statute imposes limitations on the exercise of this right by coal pipeline companies. For example, the right of eminent domain does not extend to the condemnation of water or water rights to be used by the pipeline and prohibits the use of any water in the state for the transportation of coal in a pipeline without the permission of the State Water Commission. Tex. Corp. & Assn's Code Ann. tit. 3, § 111.0192(a) (Vernon).

Prior to the exercise of the eminent domain authority conferred in the above sections, and prior to construction or operation within the State of Texas, a coal pipeline company must apply for and be issued a certificate of public convenience and necessity by the State Railroad Commission. Tex. Corp. & Assn's Code Ann. tit. 3, § 111.301 (Vernon). The Commission is directed to issue such a certificate if it finds that "existing facilities will not be able to provide the transportation as economically or efficiently as the proposed pipeline." Tex. Corp. & Assn's Code Ann. tit. 3, § 111.302 (Vernon).

Other limitations on the issuance of a certificate and operation of the pipeline are the following:

- the pipeline must be buried at least 36 inches below the surface, unless specifically exempted, and the pipeline must conform to all state or federal regulations pertaining to operation, construction, and maintenance. § 111.302(d).
- the pipeline right-of-way shall be no more than 50 feet in width, except for temporary work area. § 111.302(e).
- no common carrier pipeline may contract to transport coal for a term in excess of three years without prior approval of the commission. § 111.304.

Utah

The Utah statutes provide that "the right of eminent domain may be exercised in behalf of the following public uses: . . . gas, oil or coal pipelines." Utah Code Ann. § 78-34-1(6). This grant of power, however, may be limited by the condition that the pipeline will promote the development and utilization of resources within the state. In *Nash* v. *Clark*, 27 Utah 158, 159, 75 .371, 374 (1904), the Utah Supreme Court held that a "public use" is one which "will promote the public interest, and which tends to develop the great natural resources of the commonwealth."

West Virginia

Chapter 54 of the West Virginia Code provides that private property may be taken or damaged for, among other purposes, constructing, operating and maintaining pipelines, plants and other facilities, for the transportation by common carrier as a public utility, "of coal and its derivatives and all mixtures or combinations thereof with any substance by means of pipes . . ." W. Va. Code § 54-1-2(l). The statute states that subsection (l) was added to this section by the legislature in order "to extend the right of eminent domain to coal pipelines for public use" and "to assure that such rights shall be extended only to public utilities or common carriers as distinguished from private carriers or contract carriers." *Id*.

West Virginia statute:

The right of coal pipelines to exercise the eminent domain power is sharply limited by two significant provisions. ① First, the pipeline company must engage in some intrastate activity within West Virginia if there is "any reasonable demand therefor." Id.

② Second, the pipeline company must be issued a certificate of public convenience and necessity by the State Public Service Commission prior to exercising the condemnation right. This certificate will not issue unless the applicant can establish "that the patents . . . shall be . . . equally available . . . upon fair and reasonable terms, to other bona fide applicants seeking a certificate of convenience and necessity." Id. This provision is intended to prevent use of coal pipelines which would in any way "result in any appreciable economic detriment to others." Id.

Wyoming

Effective July 1, 1981, the Wyoming Eminent Domain Act (1981 Wyo. Sess. Laws, ch. 174, §§ 1 et seq.) states that "any utility or petroleum or other pipeline company" authorized to do business within the state may exercise the right of eminent domain. Wyo. Stat. § 1-26-814 (1981 Supp.). Such company may condemn a private way of necessity over or across the private lands of others as necessary. Wyo. Stat. § 1-26-815 (1981 Supp.).

While no specific reference is made to coal pipelines, among those purposes for which eminent domain rights are confered is "the transportation of coal from any coal mine or railroad line." Id. Assuming a coal pipeline company were allowed to exercise eminent domain power under Wyoming law, it is likely that the company would first have to apply for a certificate of public necessity and convenience. Wyo. Stat. § 1-26-816 (1981 Supp.).

B. States with Eminent Domain Statutes Which Might Be Construed Broadly Enough to Extend to Coal Slurry Pipelines:

Alabama

The State of Alabama grants the power of eminent domain to a wide array of corporations engaged in "work of internal improvement or public utility." Ala. Code tit. 10, § 5-1. These include, *inter alia*, "[c]orporations formed for the purpose of constructing, operating, or maintaining . . . pipelines . . ." Id. Additionally, Alabama empowers "[e]very mining, manufacturing, industrial, power, and quarrying corporation" to acquire by condemnation rights-of-way or easements across the land or easements of others for the purpose of constructing and operating, among other things, pipelines. Ala. Code tit. 10 § 5-3. These statutes, however, do not specifically confer the power of eminent domain on coal pipelines.

The acquisition of rights-of-way by private companies for the stated purposes is statutorily declared to be of public use and necessary to the development of the state. Ala. Code tit. 10, § 5-3(d). Section 10-5-3(d) sets forth the procedural requirements for effecting lawful condemnation. The corporation must initially apply to the Alabama Public Service Commission ("Commission") for certification. The Commission shall issue a certificate following a public notice period and upon making a finding that the proposed use would further the industrial development of the state. Every corporation granted certification is given the right, "where necessary, to cross public roads and lands, and all navigable rivers and streams . . ." Ala. Code tit. 10, § 5-3(e).

These statutes, along with section 10-2-230, have been construed to grant to foreign corporations qualified to do business in the state the same right of eminent domain which is granted to similar domestic companies. Gralapp v. Miss. Power Co., 280 Ala. 368, 194 So.2d 527 (1967).

Arkansas

Under Arkansas law, "[a]ll pipeline companies operating in this State are hereby given the right of eminent domain and are declared to be common carriers." 1921 Ark. Acts, No. 239, § 1; Ark. Stat. Ann. §§ 73-1901 (Bobbs-Merill 1979). Nowhere, however, does this section define "pipeline company." This provision, moreover, may be contrasted with section 35-601, which limits a grant of eminent domain to pipeline companies dealing specifically in "mineral oil, or petroleum, or natural gas." 1905 Ark. Acts, No. 228, § 1 (as amended); Ark. Stat. Ann. § 35-601 (Bobbs-Merrill 1962). This latter statute also provides that the products transported by the pipeline must be produced or developed in Arkansas.

Though it is arguable that the broad language of section 73-1901 -- granting eminent domain to all pipeline companies -- grants eminent domain authority to coal pipelines, this section and the section containing the narrower grant might well be construed to prohibit such an extension of eminent domain power. First, both statutes were enacted in the early part of this century, when coal pipelines and their technology were unknown. Second, section 35-601, as the narrower and the more specific of the two provisions, could be found to control the more general grant of authority contained in section 73-1901. In 1967, the Arkansas legislature enacted section 73-1904, specifically authorizing pipelines to carry ammonia and related products. 1967 Ark. Acts, No. 170, § 1; Ark. Stat. Ann. § 73-1904 (Bobbs-Merrill 1979). This enactment may indicate that the Arkansas legislature must define pipeline operations incrementally and specifically, despite the broad language of section 73-1901. For these reasons, it is not clear that the Arkansas eminent domain statute extends to interstate coal pipelines.

Colorado

Under Colorado law, "any corporation formed for the purpose of constructing a . . . pipeline . . ." may initiate condemnation proceedings against a landowner for "any real estate or right of way or easement . . . necessary or required for the purpose of any such corporation for transacting its business . . ." Colo. Rev. Stat. § 38-2-101 (1973). The statute does not specifically list the transportation of coal as a purpose for which a pipeline may be granted eminent domain. Another statute specifically gives the purposes for which a pipeline company may be granted the right-of-way without mentioning transport of coal. Colo. Rev. Stat. § 38-4-102 (1973).

The Colorado courts have held the granting of eminent domain for expressly designated corporate purposes to be consistent with the state constitution, Art. II, Section 14, which prohibits the taking of private property for private use "except for private ways of necessity." Miller v. Public Service Co., 129 Colo. 513, 519, 520 272 P.2d 283 (1954), appeal dismissed, 348 U.S. 923 (1955).

C. The State That Specifically Denies the Power of Eminent Domain to Coal Slurry Pipelines:

One state, Virginia, statutorily prohibits the exercise of the right of eminent domain by a coal pipeline. While section 56-49 of the Virginia Code confers such power on public service corporations, that section also states:

> And provided, further, that notwithstanding the foregoing nor any other provision of the law the right of eminent domain shall not be exercised for the purpose of acquiring any lands or estates or interests therein nor any other property for the construction, reconstruction, maintenance or operation of any pipeline for the transportation of coal. Va. Code § 56-59(2).

The CHAIRMAN. Thank you very much.

Senator JOHNSTON. Thank you gentlemen for excellent testimony. Mr. Witten, we heard testimony this morning that the water you are going to take out of the Oahe reservoir is going to dry out the Missouri River and impede navigation on that river. Now is it actually a fact that less than one-tenth of 1 percent of the flow rate of the Oahe dam is going to be used in your project?

Mr. WITTEN. Yes. As I spelled out a minute ago, that is approximately correct.

The other thing that is interesting to note: The amount that we would take, the 50,000 acre-feet under the agreement, is not measureable with the measuring apparatus at the Oahe dam.

Senator JOHNSTON. And the Oahe dam is not the total flow that goes into the Missouri River?

Mr. WITTEN. No; the total Missouri River collects water, and I think you mentioned it's over something like 30 percent of the country—the Missouri River itself, the drainage into the river downstream from the Oahe, as well as all the upstream drainages.

Senator JOHNSTON. Do you know what the number of cubic feet per second flows by Missouri in the Missouri River?

Mr. WITTEN. Let me give you the terms that I'm aware of. At Sioux Falls, Iowa, which is just above the Missouri border, 28 million acre-feet a year flow past Sioux Falls, Iowa, in the Missouri River.

Senator JOHNSTON. Twenty-eight million acre-feet per year?

Mr. WITTEN. Yes.

Senator JOHNSTON. And you're going to take 20,000?

Mr. WITTEN. Initially it would be 20,000 and it could go up to 50,000.

Senator JOHNSTON. What percentage would that be of the flow?

Mr. WITTEN. It's even less than one-tenth of 1 percent.

Senator JOHNSTON. Is that like a hundredth of 1 percent?

Mr. WITTEN. Yes.

Senator JOHNSTON. It's on the order of one-hundredth of 1 percent?

Mr. WITTEN. Yes.

Senator JOHNSTON. ETSI has spent about 10 years putting this thing together?

Mr. WITTEN. Yes.

Senator JOHNSTON. And you're going to spend over $50 million extra by going around Nebraska?

Mr. WITTEN. Yes; we'll go around Nebraska through Colorado. We've acquired the rights-of-way through Colorado by business negotiations with the citizens, the landowners there. We have not used the Colorado eminent domain authority. We have negotiated those right-of-way agreements and are paying fair market value for rights-of-way, assuring that crop damages would be reimbursed and in that straightforward way we would deal with rights-of-way acquisition. But that alternative route will cost us about $50 million.

Senator JOHNSTON. We heard testimony today about the number of States that have eminent domain legislation. Isn't it a fact that that legislation is rather a kind of crazy quilt for different requirements ranging all the way from, I think it's Florida that says they'll give you eminent domain but you have to be the last

State—every other State along the way has to have that authority—to requirements for such things as must be a net economic benefit to the State. I don't know how you measure an economic benefit of a pipeline that begins somewhere else and only passes through your State. Being from a State that's literally criss-crossed by pipelines, I've never heard anyone say it's a benefit to the State. You can live with them but it hardly benefits the State.

Isn't it a fact it's just a crazy quilt of the requirements?

Mr. WITTEN. Yes, and I would talk specifically about the area of the country that I am personally familiar with. In the area that ETSI deals with, I am aware of the South Dakota eminent domain legislation, the Wyoming eminent domain provisions. At least in our experience the Wyoming eminent domain privileges will work. I've stated that Nebraska does not have any eminent domain privileges at all, Colorado's has a defect, the uncertainty of whether that eminent domain law is applicable to either transportation. Kansas does not have an eminent domain law at all. Oklahoma has one. It's not entirely clear, and as I pointed out in the testimony, we've been 7 months trying to get a hearing on our application which normally would be a relatively routine application and eminent domain is available in Arkansas which we have not used yet and probably may not have to.

All of those laws are different, and the Florida one is a classic. After everybody else is in place then Florida gets the last say. So there are all those kinds of special conditions from each of those State laws that impeded the ability to use those State laws as a way to put together a large project.

Senator JOHNSTON. Thank you very much.

Senator NICKLES. Thank you, Mr. Chairman. I wish to compliment both of you for addressing the State eminent domain question because I think that is very important and needs to be addressed. In looking over the testimony of both of you, I think you did allude to it and cite the need for some change.

Mr. Witten, the ETSI project, which I think you mentioned in your statement, you began working on this and trying to implement it when?

Mr. WITTEN. The project was originally conceived and developed in about 1972, early 1973 and it has been continuing. There has been progress continuously to date.

Senator NICKLES. Are you to the point where you're beginning construction? How close are you?

Mr. WITTEN. I'm talking specifically about the right-of-way acquisition. We have about 70 percent of the right-of-way under option or under agreement. We're proceeding on that and we'll have those rights-of-way finished by sometime in September or October of this year. Our plan is that we should have 100 percent by the end of this year, so we're continuing with that activity. We are continuing with the other project developments and would expect to have all of those developments in hand by year's end. If all turns favorably then we can begin construction approximately this time next year and even then the first operation would be in 1985.

Senator NICKLES. So if everything goes well you'd begin construction about a year from now and possibly delivery of coal when, in 1985?

Mr. WITTEN. The beginning of 1985.

Senator NICKLES. So you're talking about what, a 2-year construction?

Mr. WITTEN. A 2-year construction period for the first phase and about 2 years more to finish some of the downstream phases.

Senator NICKLES. Will this be a single——

Mr. WITTEN. Yes. It would be 40 inches in diameter.

Senator NICKLES. And it will be running all the way to the——

Mr. WITTEN. Actually it will be prepared and put into the pipeline in Wyoming in the Powder River Basin in northeastern Wyoming, and then transported through to delivery points in Oklahoma, Arkansas, and Louisiana.

Senator NICKLES. So the first phase would be delivery in——

Mr. WITTEN. In Oklahoma, and the second phase would be delivery into Arkansas. The third phase into Louisiana.

Senator NICKLES. So by completion of the third phase you'd be well past 1985?

Mr. WITTEN. Yes, we'd be in 1987.

Senator NICKLES. What is the total estimated cost of the project?

Mr. WITTEN. We are currently refining that cost and the cost we're using at the moment in current dollars, or the value of dollars that have been spent, the estimate is $3.5 billion. All privately financed by commercial banks.

Senator NICKLES. In looking at your statement, you talk about the window. Would you explain that? Were the railroads basically drawing a line, and how were you able to get around the construction that had been placed?

Mr. WITTEN. In going back into those railroad acts of 1862 and 1864, I'm guessing a little bit, but the railroads selected a route to get to their destination. The Federal Government then gave them fee lands for every other section. So along the route in every other section of the railroads fee they alternated sections that were retained in public lands and later disposed of in other public land disposal systems. And the railroads retained the easement over those alternating sections.

We then were required to align the pipeline right-of-way to pass through those alternating sections where the railroads had easements. In 1965 we applied for easements which are traditionally rather routine, and to get a crossing, as long as there is no interference with the railroad operation. In ETSI's particular case every single one of those applications was denied. We had to take every single one of them to court in order to get the easements granted that would normally just be handled as a routine matter.

Senator NICKLES. How much of that going to court, et cetera, how much time-wise did it delay the project?

Mr. WITTEN. I'm not very precise about that but at least a couple of years.

Senator NICKLES. And figuring the cost of the project, do you have any idea if we would have had this law in place what the cost of this project would be? I'm trying to see what ultimately we're charging consumers and everyone else.

Mr. WITTEN. I can't reliably tell you that right now, but we can certainly get that and send it to you. Obviously a couple of years delay, extensive delay, is one that would cause a great deal of impact on the cost.

Senator NICKLES. I'm not trying to put an undue amount of burden on you in paperwork or administratively, but if you're able to move that time frame up a couple of years, if you didn't have to go through all of the legal obstacles, I guess, to get it implemented, you probably would be talking about a project that would be considerably less than $3.5 billion in current dollars and possibly much closer to $2.5?

Mr. WITTEN. Yes. Actually I would guess right now, based on current inflation forecasts, that a year's delay in inflation costs alone is about $200 million. That's an approximation. I can give you a refined number later.

Senator NICKLES. Thank you.

The CHAIRMAN. Thank you very much.

Mr. Workman, did I understand you to say that the pipeline is not of any real interest to many of the States that are involved?

Mr. WORKMAN. Yes, as Senator Johnston said, the mere passage of a pipeline through a State doesn't by itself confer any particular benefit on the State. Especially that is true if the State is one that is not the source of the coal that is in the pipeline or the destination of the coal that's in the pipeline. It only provides the ground to bury it.

The CHAIRMAN. Are you suggesting then that the only reason they've expressed interest is because of the railroad lobby? Because most of the States have expressed an interest. You say they don't really have an interest.

Mr. WORKMAN. I'm not aware that most States have expressed an interest. In what context is your meaning?

The CHAIRMAN. I'll invite you into my office to look at my files.

Mr. WORKMAN. The railroad lobby has been very effective.

The CHAIRMAN. I understand. I'm just trying to get to the source of your statement because I have to contrast my files with your statement, and most files indicate that there has been a great deal of interest in every one of the States affected, and you say they don't really have any interest.

Mr. WORKMAN. My comment goes to the States along the pipeline. They're just transversed by the pipeline and not served by it. They don't have any affirmative interest to facilitate the development of that pipeline.

The CHAIRMAN. It seems to me that North Dakota became one in which they had an affirmative interest. They were induced to have an affirmative interest.

Mr. WORKMAN. There are indeed a number of States which have passed laws and those States, for some reason, etablished an affirmative interest and passed the law. I don't know what the background was in North Dakota. I know what it was in Florida because of the lobby.

The CHAIRMAN. Your primary experience then in State interest comes from the State of Florida?

Mr. WORKMAN. My company's own direct interest comes primarily from the State of Florida, and some discussions and efforts we had in other States along the coalstream route where we withdrew from the effort to pass a law because it didn't seem feasible.

The CHAIRMAN. Mr. Witten, would you agree with Mr. Workman's statement that the States don't have an interest?

Mr. WITTEN. The interest that I would like to address is, in a coal slurry project there is a great deal of ad valorem tax reasons. South Dakota is an example, their annual average lower tax rate will be about $2 million.

The CHAIRMAN. I inadvertently identifed North Dakota, I meant to say South Dakota.

Mr. WITTEN. South Dakota has an interest in the ETSI project as I pointed out briefly in the testimony. The agreement that we have with South Dakota is that they will allow us to use water from the Oahe Reservoir.

The CHAIRMAN. And the pipeline doesn't traverse the State at all?

Mr. WITTEN. Yes, it travels westward for about 250 miles in South Dakota.

The CHAIRMAN. Is that the pipeline or is that the water connection?

Mr. WITTEN. It's the conventional pipeline that will pump water.

The CHAIRMAN. It's not the slurry pipeline? The slurry pipeline itself isn't in South Dakota?

Mr. WITTEN. No, it begins in Wyoming. It's a water pipeline. The interest that South Dakota has is that for the water agreement we pay the $9 million which the State has earmarked for statewide water development projects to solve some of their own problems.

The CHAIRMAN. Your pipeline will go through Wyoming and it also goes through the State of Kansas, the State of Oklahoma, into the State of Arkansas, through the State of Louisiana?

Mr. WITTEN. Yes. The lateral through Louisiana is not in our current plan. It is described in the EIS and it's possible for some date in the future.

The CHAIRMAN. It's delivered in Arkansas and then into Louisiana?

Mr. WITTEN. And delivered into Oklahoma as well.

The CHAIRMAN. The States of Colorado and Kansas have no interest in either the water or the coal?

Mr. WITTEN. No.

The CHAIRMAN. Have they expressed any interest in the pipeline?

Mr. WITTEN. As I said, we have acquired the right-of-way in Colorado. We haven't dealt with the State of Colorado. We've dealt with the local landowners to acquire those rights-of-way. We're doing likewise in Kansas. We did approach the Kansas Legislature and passed eminent domain legislation. That was during the period that we were pursuing the window program. Kansas acknowledged that the window program was effective since we were not accorded by the railroads. The Kansas Legislature elected not to pass the eminent domain legislation for coal slurry pipelines.

The CHAIRMAN. As I recall your statement, you indicated the total cost of the pipeline is now contemplated to be $3.5 billion?

Mr. WITTEN. Yes.

The CHAIRMAN. And the rerouting to avoid the State of Nebraska has cost you an additional $50 million?

Mr. WITTEN. Yes.

The CHAIRMAN. Or a little less than 1½ percent of the total cost of the pipeline?

Mr. WITTEN. Yes.

The CHAIRMAN. You've also made several comments with respect to the flows in the river system. What is the low flow of the Missouri River, and are there restrictions on water use for navigation in the Missouri River at the present time?

Mr. WITTEN. I can't give you the low flows. They are spelled out very carefully in the programmatic EIS that was made, the $28 million acre-feet that I referred to is the average annual flow.

The CHAIRMAN. Averages don't count for much unless you have a way of spreading those peak flows to the low flows.

Mr. WITTEN. Yes, I don't know what that is. Certainly it's readily available. The material I've seen from the Corps of Engineers suggests that after 2 years of drought on the Missouri River watershed they shortened the navigation period by 1 or 2 days. It's a relatively short period. I'm not precise on that. Certainly it's common knowledge and I can get that information for you.

The CHAIRMAN. Does ETSI need to acquire any additional water rights to recharge the pipeline along the proposed route?

Mr. WITTEN. No. We will need water rights along the way for domestic use, for people who work along the pipeline, for their domestic requirements. We do not need any water rights for the slurry itself.

The CHAIRMAN. There is no industrial water involved?

Mr. WITTEN. No.

The CHAIRMAN. You're not contemplating any industrial consumption? It's just human consumption of the people that will be involved?

Mr. WITTEN. Yes, along the route.

The CHAIRMAN. Is it economically feasible to recycle the water back to the State of origin?

Mr. WITTEN. It's doubtful at the moment. In fact I would say it would not be economically feasible.

The CHAIRMAN. Have you done studies on that?

Mr. WITTEN. Just some preliminary studies that do support the fact that the cost of a return line would make the system uneconomical.

The CHAIRMAN. Have you looked at the cost or the current technology of using some other fluid other than water?

Mr. WITTEN. Within ETSI we have not. There are a lot of developments that are going on which we are aware of. There is some scientific work being done on liquid CO_2, methanol, and coal or oil slurries. Even some pneumatic systems. That research work is being done, it's being developed now. Each of those systems have some limitations and would at the moment suggest they are not practical. We feel strongly, though, that over time some of the systems may become practical and would be the use of the future.

The CHAIRMAN. Have you and the association looked at the feasibility both economic and technological alternative fluids?

Mr. WORKMAN. Yes Sir, we have a technical conference each year which draws worldwide attendance from engineers. Eleven countries were represented at our last conference, and work is being done in a great many places on those other fluids. Those are all technologies of the future. The only presently available and workable technology for slurry transportation of coal is the use of water.

The **Chairman**. From a technological standpoint? You mean an oil-coal slurry pipeline is not technologically feasible?

Mr. **Workman**. The work required to prove the technological feasibility has not been done. Nobody has ever pumped coal and oil together and determined what facilities would be required to separate it and how it would be done. That all has been done and proven with water, but it hasn't been proven——

The **Chairman**. You're talking about the separation?

Mr. **Workman**. Yes.

The **Chairman**. You are aware that there are some oil-coal slurry mixtures being fired?

Mr. **Workman**. Yes, within powerplants.

The **Chairman**. Isn't that where most of this coal is going to go?

Mr. **Workman**. Yes sir.

The **Chairman**. Has that technology been looked at?

Mr. **Workman**. Yes, the technology of firing coal with oil or water or other liquids has been studied well and appears to be feasible. That does not——

The **Chairman**. The transportation of a coal-oil slurry is no problem. The problem is separation.

Mr. **Workman**. The transportation within a powerplant, the type that has been tested presently, does not necessarily, automatically, make it transportable in large volumes over long distances. That has not been tested.

The **Chairman**. Do you have doubts about that?

Mr. **Workman**. The doubts about the technical feasibility are not as serious as the economic feasibility.

The **Chairman**. I would assume that is correct. I just wonder how serious the doubts are about the technological feasibility.

Mr. **Workman**. I think they are not doubts that it will work. There are developments that have yet to be done to prove that it works and to know what needs to be done to make it work.

The **Chairman**. How about the storage of a coal-oil slurry?

Mr. **Workman**. Where it has been produced for use in powerplant tests it has been stored and it is storable.

Senator **Johnston**. You can't very well pile it up, though.

Mr. **Workman**. You store it in tanks and you have concern about keeping it agitated so it doesn't settle, or you have to add certain chemical additives to keep the coal from settling.

The **Chairman**. But apparently that's no problem with the current time where they're using it at a powerplant.

Mr. **Workman**. They're not using it presently, but it's been tested, and typically those tests make small batches and use them up. They didn't store it for long periods.

The **Chairman**. You wouldn't anticipate that they would store this for a very long period, would you?

Mr. **Workman**. Normally powerplants using coal presently store their coal on piles for very long periods.

The **Chairman**. Mr. Witten, well a very long period, are there any of them that stockpile coal for more than 60 or 90 days?

Mr. WORKMAN. It depends on how long they think the next strike is going to last.

The CHAIRMAN. How long do they think the next strike is going to be?

Mr. WORKMAN. I think some companies had piles that were longer than 60 or 90 days in anticipation of the last strike. But it would vary from utility to utility.

The CHAIRMAN. That isn't what I heard during the last strike. Most of them were complaining they didn't have supplies to last 60 or 90 days. Now if there were others that would have supplies that would last longer than that I sure didn't hear of them. Maybe that's understandable. They were probably afraid we'd preempt them and take it away from them. Or perhaps they didn't have any need to say anything.

Mr. Witten, you indicated that you have all of your rights-of-way already, but in Colorado you didn't have to use eminent domain and in Kansas you were able to negotiate, is that correct?

Mr. WITTEN. Yes. We don't have all the rights-of-way in Kansas, but we have the majority of them. Something like 90 percent.

The CHAIRMAN. Now if the Federal statute provides that the eminent domain, if exercised, will be exercised in the same way it will be exercised under State law, how does that save you time?

Mr. WITTEN. We think if there were a Federal law that would pull all of these together we wouldn't have to deal with the railroads in the window program that I've talked about. There would be a mechanism to deal with the differences between the States and in those States where there is no existing eminent domain law we could proceed.

The CHAIRMAN. But the one State you don't have it and you haven't had any problem there. I'm trying to identify what the problem is you're trying to deal with.

Mr. Workman has been relatively forthright to say it's those damn railroads. My adjective, not his.

Mr. WORKMAN. I adopt it.

The CHAIRMAN. None of you have yet identified those damn oil companies. I'm waiting for that, but we'll get around to that a little later, but apparently, you're having a problem at the State level or a perceived problem at the State level, and yet I can't identify precisely what it is.

Mr. WITTEN. Let me say precisely what our concern is. We have been 7 years to get where we are with the right-of-way. We've been actively pursuing the right-of-way since 1975. We have gotten there but it's 7 years of work. It's 7 years of time that would be at the expense of whoever the beneficiaries are. We think then that the Federal eminent domain law would clarify a lot of the problems that we've had. It would allow subsequent projects.

The CHAIRMAN. How would it clarify them?

Mr. WITTEN. I think the clarification would be the example in Colorado that I mentioned.

The CHAIRMAN. But you haven't had any problem in Colorado?

Mr. WITTEN. We have not had but it's an example of a problem that if we were denied a right-of-way in Colorado for an interstate transportation there, I think——

The **Chairman**. But I'm puzzled. If you haven't had any problem there, but you want us to pass a national statute to correct a problem you haven't yet had.

Mr. **Witten**. I'm only using that as an example, but you would have a real problem in some of the other States that ETSI is not now traversing. I'm only using that as an example of what could happen. There very well could be a problem if there is another coal slurry pipeline that would try to cross Colorado.

The **Chairman**. There could also be a problem if there are a lot of pipelines that begin to deplete the river flow. Is there a danger that if we have a national statute there will be a national balancing so that you don't have the State of South Dakota selling off water to the detriment of the people downstream because the Federal statute would have a Federal agency balancing all of those rights on a much different way?

Mr. **Witten**. Yes. I think the other check and balance in the system is the fact that every single project would have to come forward and have its own environmental impact statement. All of those questions on the availability of water, those environmental impacts would have to be addressed in the specific case-by-case basis.

The **Chairman**. Is that not now being done?

Mr. **Witten**. It is being done.

The **Chairman**. And the national statute doesn't change that? It doesn't help you and it doesn't hurt you?

Mr. **Witten**. On those environmental impacts, no.

The **Chairman**. Mr. Workman, you've identifed the difficulty of trying to get rights-of-way where it involved railroad right-of-way. As I see it, aside from the fact that you have to deal with the diversity of States, and not one State, that is the major problem that confronts you?

Mr. **Workman**. We have a problem with dealing with a number of States. We have a number of railroads, about 170 railroad crossings and 11 or 12 railroad companies in a territory where the railroads are not land grant railroads and therefore own the rights-of-way and fee. It's territory, unlike the ETSI terrain, which is being characterized by large blocks of land where it's easier to negotiate rights-of-way in the East where you have smaller tracks and more parcels to acquire per mile. We don't think that we could successfully build pipelines in the East or acquire the right-of-way in the East without Federal eminent domain.

The **Chairman**. How does the Federal statute help you negotiate with multiple parcels?

Mr. **Workman**. A statute helps you negotiate the acquisition when you have multiple parcels. The threat of eminent domain is what eventually results in most acquisitions being consummated.

The **Chairman**. Now you're talking about having a statute. You're talking about having some statute. You're not talking about whether it's Federal or State.

Mr. **Workman**. It has to be some workable statute.

The **Chairman**. Whether it's Federal or State. But a Federal statute doesn't help you more than a State statute?

Mr. **Workman**. So long as they're both workable, either works fine.

The **Chairman**. Do you have problems with State statutes for eminent domain where they exist with respect to the acquisition of rights-of-way of a railroad property?

Mr. **Workman**. The only place they exist on our line are in the States of Florida and Ohio, and in Florida it would not be operational until every other State passed the law, so it wouldn't work on railroad property or any other.

The **Chairman**. So you don't know whether you'd have problems with railroads——

Mr. **Workman**. The statute in Florida does not distinguish between railroad or other property.

The **Chairman**. I understand that, but you don't perceive a difference between State statute and Federal statute insofar as railroads are concerned?

Mr. **Workman**. No.

The **Chairman**. They don't raise any issues of Federal license or interstate commerce or anything of that nature with respect to the use of eminent domain to acquire the right-of-way across the property?

Mr. **Workman**. Mr. Chairman, we have not tried to acquire that right-of-way yet. And we don't know what defenses they will raise when we do.

The **Chairman**. Does anybody within the Slurry Transport Association raise those issues?

Mr. **Workman**. I don't believe that any slurry pipelines have been built through the substantial exercise——

The **Chairman**. I understand that. I'm not asking what your experience has been. I'm asking you whether or not you think it will be a problem. Is there a distinction between the State and Federal statute on eminent domain?

Mr. **Workman**. No, sir. It's not our intention that there be.

Senator **Johnston**. Mr. Witten, you were asked about problems in Colorado. You did have problems in Nebraska and that's why you didn't go through Nebraska.

Mr. **Witten**. Yes.

Senator **Johnston**. You just couldn't get the right-of-way.

Mr. **Witten**. We were able to acquire about 30 percent and have been stymied now for about a year.

Senator **Johnston**. And that's why you paid the extra $50 million to go around?

Mr. **Witten**. Yes.

The **Chairman**. Our one-tenth of 1 percent of the water may be more important to some of the Western States than your 1½ percent of additional cost. I guess that kind of balancing would get down to some point in this political equation, and I don't mean by that comment to indicate that I've made up my mind on what I'll do with this legislation, but I am concerned about that water rights question.

You've indicated difficulty with railroads. You had a little difficulty getting along with the State of Wyoming. You had a little trouble getting to an agreement with the State of South Dakota on water, but you eventually bought some water. I don't know whether you made the same kind of financial arrangements with the railroads, whether you'd have the trouble with them.

Mr. **Witten**. Who knows now? I can't say.

Mr. **Workman**. I feel confident that we would have trouble with the railroads.

The **Chairman**. Even at that price?

Mr. **Workman**. At any price that would enable us to build a pipeline economically and compete with them. Their profitability in recent years has, for the coal-hauling railroads, been keyed to the transportation of coal, and they have no reason to permit a competitor to get in the business.

The **Chairman**. I just recently read a book that outlined some of the history of General McArthur. At one point he was being offered substantial inducements to change his position with regard to a certain issue and he said, "I hope I will be relieved of this command because they're getting close to my price." You haven't found that possible with the railroads?

Senator **Johnston**. He was in New Orleans at the time. [Laughter.]

Mr. **Workman**. We don't have any idea what their price is.

[Subsequent to the hearing, Mr. Whitten and Mr. Workman submitted the following additional information:]

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San Francisco, CA 94120-7598
Telephone (415) 768-6814

ETSI

W. M. Witten
President

May 19, 1982

The Honorable James A. McClure
3121 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator ~~McClure~~: Senator

In response to your question raised during the Hearings on S. 1844 concerning the ability of coal slurry pipelines to clean up their waste water discharge which occurs during the dewatering process of coal slurry, the ETSI Pipeline Project would like to submit this statement.

The ETSI Project's technical capability to control waste water discharge is based on the years of operating experience and knowledge gained from two commercial dewatering plants: one, which is a part of the Eastlake Pipeline in Ohio, and one at the Mohave Generating Station in Laughlin, Nevada. To add to that knowledge, ETSI, in 1980, decided that it would be beneficial to build a coal evaluation plant to study the equipment, operation and quality control associated with a coal slurry system. This plant, which cost $14 million to build and operate for seven months, prepared coal slurry, pumped it through a pipeline, dewatered the slurry, stored dewatered coal and discharged water at the completion of the cycle. The waste water discharged from the dewatering plant uses a conventional system of settling tanks and flocculants to remove coal particles from the water. These systems are used worldwide and have an excellent history of reliability.

Water discharged from the coal slurry dewatering plant can be used in the adjoining electric generating facility as cooling water make-up, thus reducing its demand for water. In any event, the test results at our Coal Evaluation Plant demonstrate that the water, which could be discharged into the rivers and streams, has less suspended solids than the water it is entering.

In addition to the security of knowing that a coal pipeline developer has gone to the expense and effort to be certain that the system can be operated in a safe and environmentally sound manner, it is also important to know that one cannot obtain the necessary waste water discharge permits without complying with Federal, State and local pollution control laws.

Federal water discharge controls are required under Section 402 of the Federal Water Pollution and Control Act Amendments of 1972, and it is unlawful to discharge until a permit has been issued in accordance with the National Pollutant Discharge Elimination System (NPDES). In addition to these Federal standards, ETSI will have to comply with water quality standards for service water promulgated by the States of Oklahoma and Arkansas. The performance and results of the ETSI water discharge system at the Coal Evaluation Test Plant at White Bluff, Arkansas, was reviewed by Arkansas regulatory authorities. Additionally, ETSI is currently going through a water discharge application technical review with the Oklahoma, Arkansas and EPA regulatory authorities. These specific water discharge requirements were addressed in the EIS prepared by the Bureau of Land Management on the ETSI Pipeline Project. This Environmental Impact Statement, which took two years and cost $6 million to prepare, was issued in July 1981. (Copy attached).

As I stated earlier, there have been two commercial coal slurry systems which have provided us with sufficient information to demonstrate that we can operate in an environmentally sound manner. The first commercial coal slurry pipeline, the Eastlake Pipeline, operated for six years, discharging water into Lake Erie, containing only five to ten parts per million of suspended solids.

The other commercial coal slurry facility with a waste water discharge system is located at the terminus of Black Mesa Pipeline and is part of the dewatering facility at the Mohave Electric Generating Station. This facility has been operating for more than 11 years without any adverse environmental effects. Contrary to the description of the Mohave plant's dewatering system provided by Mr. John McCormick of the Environmental Policy Center, the waste water discharged from the plant is properly cleaned and reused.

The waste water from the Mohave Dewatering Plant is cleaned by simple settling and the use of flocculants which cause the coal particles to separate from the water. The water is then sent to the generating plant and used as cooling water. Approximately 10% of the power station's cooling water makeup is provided by the coal slurry dewatering plant, instead of being extracted from the Colorado River.

The waste water does not contain any chemicals, heavy metals, trace elements or acid compounds that were not originally in the water when mixed to make the coal slurry. Chemicals used to prevent corrosion are used only when water is pumped in the pipeline, not coal slurry. This event rarely happens. The flocculants used to remove the coal particles from the water do not require treatment prior to discharge. The waste water discharge system removes all but twenty parts per million of the suspended solids in the water. This level would be a suitable level for most rivers or streams in this country, with the notable exception of the Colorado River. A Treaty with Mexico requires that no water be discharged into the Colorado River.

The water ponds described in Mr. McCormick's statement are the result of water discharge from the cooling towers and condensors caused by excessive blowdown, not the coal slurry operation. The same 250 acres of evaporation ponds used by the generating station would be needed even if the coal was delivered by railcars. It is, again, the fact that International Treaty bars any water discharge into the Colorado River that the Mohave Generating Station had to build ponds to evaporate its waste water.

There should be no doubt, given the state of the art in waste water treatment, and based on the history and experience gained from two commercial coal slurry systems, that the waste water from a dewatering plant can attain the standards set for such discharges by Federal, State and local environmental protection agencies.

I would like to thank you for this opportunity to respond to this important question. If any additional information or explanation would be helpful, I will gladly provide it to you.

Sincerely,

Wesley Witten

WW:pd

Attachment

cc: Senator Mark O. Hatfield
Senator Lowell P. Weicker, Jr.
Senator Pete V. Domenici
Senator Henry M. Jackson
Senator J. Bennett Johnston
Senator Dale Bumpers
Senator Wendell H. Ford
Senator Howard M. Metzenbaum
Senator Malcolm Wallop
Senator John W. Warner
Senator Gordon J. Humphrey
Senator Frank H. Murkowski
Senator Don Nickles
Senator John P. East
Senator John Heinz
Senator Spark M. Matsunaga
Senator John Melcher
Senator Paul E. Tsongas
Senator Bill Bradley
Gary Ellsworth
Mike Hathaway

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ETSI

W. M. Witten
President

May 19, 1982

The Honorable Don Nickles
6327 Dirksen Senate Office Building
Washington, D.C. 20510

Dear S~~enato~~r: Senator

At the Senate Energy Committee Hearing on the Coal Utilization and Distribution Act, S. 1844, you asked me to determine the cost to the ETSI Pipeline Project caused by the delay in seeking to cross railroad surface easements without the benefit of Federal Eminent Domain. As I stated in my testimony, the ETSI "window" program, which sought crossings under railroad surface easements, and the subsequent litigation to prove that right, delayed the project two years.

While we have no way to account for the direct cost of this program, and the two-year delay, we do know that our legal cost in carrying forward the litigation resulted in several million dollars. Additionally, the impact of inflation on the cost of constructing the Pipeline, even at a conservative estimate of 8% per year, would amount to approximately five hundred million dollars. Not included in that amount are any of the increased financing costs which have resulted from higher interest rates.

I would like to thank you for this opportunity to respond to your question. If any additional information or explanation would be helpful, I will gladly provide it to you.

Sincerely,

Wesley Witten

WW:pd

cc: Senate Energy Committee Members
Gary Ellsworth
Mike Hathaway

STA
SLURRY TRANSPORT ASSOCIATION
490 L'Enfant Plaza East, S.W., Suite 3210
Washington, D.C. 20024 • Telephone (202) 554-4700

May 21, 1982

The Honorable James A. McClure
Chairman, Senate Committee on
Energy and Natural Resources
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

At your Committee's hearings on May 10, you asked me a number of questions regarding the feasibility of using oil in place of water as a coal slurry medium. I tried to indicate that although work was being done on coal/oil mixtures, they had not yet been perfected and that the only presently workable coal slurry technology is that based on coal/water mixtures.

The attached article, quoting the President of the Electric Power Research Institute, indicates much better than I was able to what some of the unsolved problems are with the use of oil as the liquid medium mixed with coal. EPRI's work with coal/oil mixtures, like most others with which I am familiar, was attempting to perfect a fuel to be substituted for petroleum boiler fuel. The problems EPRI encountered, however, in handling coal/oil mixtures in that context are certainly to be expected if one tried to transport coal/oil mixtures through a pipeline over long distances for long periods of time.

I hope this article helps answer the line of questions you posed to me.

Sincerely,

Ross Workman
Chairman

RW:gsk
Attachment
cc: Committee Members

THE OIL DAILY 5/14/82

Coal-Oil Fuel Mixture Problems Lead EPRI To Coal-Water Tests

By Steve Marcy
Coal Industry News

WASHINGTON — Continued coagulation problems with coal-oil mixtures has caused the Electric Power Research Institute to nearly abandon them in favor of more promising coal-water mixtures.

"They just do not work very well," Floyd L. Culler, president of EPRI, said of the coal-oil mixtures at a delegates meeting of the International Committee on Coal Research.

EPRI has been unable to find an effective emulsifier that will prevent the coal granules from settling out of the coal-oil mixtures. Chemicals in oil also tend to leach out minerals in the coal, contributing to the formation of tar-like substances that foul boiler systems.

EPRI, the Department of Energy and the coal industry had thought coal-oil might be a short-term technology to rapidly convert oil-fired electric boilers largely to coal with a minimum of modification.

Culler said EPRI had made no decision to abandon the technology, but much more of the organization's attention would be spent on coal-water mixtures, which could reach commercial use as early as the mid-1980s.

If coal-water proves successful, it could greatly intensify the demands for a coal slurry industry and eventually become a substitute for No. 2 fuel oil, perhaps delivered in the same marketing system and burned without drying.

Their combustion characteristics produce an oil-like flame, although no one knows why, Jan Mares, Department of Energy assistant secretary for fossil energy, told the meeting.

Coal-water mixtures, Culler said, are much easier to emulsify and seem stable enough to survive normal shipping distances and time periods.

Utilities could take delivery of coal-water either by barge or pipeline and burn the mixture in oil-fired boilers, especially if the boiler was at one time originally designed for coal but had been converted to oil.

The need for any combustion gas cleanup and the degree to which slagging on the boiler tubes and other factors which could reduce electric power output are the two major questions that must be answered before coal-water can be commercialized, Culler said.

Helping to answer these questions is Babcock and Wilcox, which is about to conduct test burns of coal-water that is 70 to 75 percent coal. The Energy Department's Office of Fossil Energy plans later this year to let two commercial test contracts for coal-water.

Fluidized Bed Gains

Culler said pressurized fluidized bed combustion systems for coal were also showing more promise. A lowering of temperatures has improved reliability enough, with only a minimal loss of efficiency, that demonstration of the technology, though at less than commercial-utility size, might be stepped up to the mid-1980s.

Culler said lowering the temperatures of the pressurized bed combustors from about 2,100 degrees Fahrenheit to about 1,850 degrees allows them to operate at 15 atmospheres reliably.

Their principal utility use, Culler said, is to retrofit them to existing coal-fired power plants to add peak-load capacity. The gases coming from them would spin a gas turbine connected to a generator and, in some cases, would then pass through a conventional boiler to contribute to steam production.

The use of pressurized fluidized bed combustors with gas turbines, theoretically the most efficient use for them, has one technological problem that has some German representatives of ICCR less optimistic than Culler.

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ETSI

W. M. Witten
President

June 16, 1982

Gary E.

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 17 1982
WASHINGTON, D.C. 20510

cc: Tom
Pat

Via Federal Express Mail

The Honorable James A. McClure
3121 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator McClure:

I would like to thank you for the fairness and courtesy you extended to the coal pipeline industry in scheduling hearings on S.1844, the Coal Utilization and Distribution Act. In keeping with your past record, and promise to give the Coal Pipeline Bill fair and equitable treatment, it is necessary that you schedule S.1844 for a Mark-up Session before the July 4th recess. A shorted legislative calendar caused by elections, requires prompt action by your Committee if this Bill is to proceed to the floors of both Houses of Congress for a vote.

I trust you found the water experts' testimony reassuring when all three experts concluded that Congress can, in fact, protect state water rights from federal intervention. Even more importantly, they found it essential that language, such as that found in Section 6, be enacted to preclude interstate pipelines from exercising existing rights under the "commerce clause" and thus avoid state water law.

I hope that the next time I am in Washington, we can arrange to meet and discuss the status of the ETSI Pipeline Project.

Cordially,

Wesley Witten

Wesley Witten

WW:pd

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MAY 19 1982

May 13, 1982

The Honorable James A. McClure
Chairman, Senate Committee on
  Energy and Natural Resources
United States Senate
Washington, D.C.   20510

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
MAY 19 1982
WASHINGTON, D.C. 20510

Dear Mr. Chairman:

At your Committee's hearing on Monday, May 10, 1982, on S. 1844, the "Coal Distribution and Utilization Act of 1981", I testified supporting the necessity for Federal eminent domain legislation from interstate coal pipelines.

During my testimony, I stated that Federal eminent domain for coal pipelines was needed because many states had no "interest" in coal pipelines. Your questions Monday indicated that I may not have made clear the reason that many strategically located states cannot be expected to adopt state eminent domain statutes for interstate coal pipelines.

Most interstate coal pipelines will gather coal in one or more coal producing states, traverse a second set of states, and deliver the coal in a third set of states. Pipeline companies can expect to have, and have in fact had, some success in obtaining state eminent domain in the coal producing and coal consuming states to be served by the pipeline. However, pipeline companies have failed for 20 years to obtain eminent domain authority in "intermediate states". The problems in these states are both legal and practical.

Normally, a jurisdiction, such as a state, cannot grant eminent domain authority for a facility unless that facility will provide a "public use and benefit" to the citizens of the jurisdiction. Thus, an intermediate state, such as Nebraska in the ETSI Pipeline Project route, often cannot identify a "public use and benefit" to its citizens that would support a grant of state eminent domain authority. These legal difficulties were encountered by interstate natural gas pipelines during their development and resulted in an amendment of the Natural Gas Act in 1947 to grant Federal eminent domain authority to such pipelines.

A complete discussion of this legal problem in relying on state eminent domain is set forth in the attached memorandum and was also referred to by the Office of Technology Assessment in the 1978 report on coal slurry pipelines, as follows:

> "Under the 'Public Purposes' requirement, circumstances in a 'State of Origin' and in an 'Intermediate State' may preclude a pipeline from being considered as serving a public purpose within the state or being a common carrier in fact, and thereby prevent the valid exercise of State eminent domain authority by such pipeline. Coal Slurry Pipelines: A Technology Assessment, Office of Technology Assessment, Congress of the United States, Washington, D.C. (March 1978), page 136."

The practical difficulties of obtaining compatible coal pipeline eminent domain statutes in each relevant state have also become clear during the last 20 years. Legislators in intermediate states obviously perceive little political advantage in supporting eminent domain authority for a pipeline that will not serve their states. In addition, as the hearings indicated, obtaining compatible and workable eminent domain statutes in a series of states is an extremely difficult task. Each state can be expected to include different conditions and processes in their eminent domain statutes, some of which may be inconsistent with the legal requirements of other states along the pipeline route. For these reasons, the Federal government has traditionally provided for and regulated interstate energy and transportation systems.

I hope this additional information for the May 10th hearing record proves helpful in your consideration of S. 1844. If you have additional questions, please feel free to contact me.

Sincerely,

Ross Workman

Ross Workman
Chairman

MEMORANDUM

Re: Need for Federal Eminent Domain Authority for Interstate Gas Pipelines

The history of interstate natural gas pipelines demonstrates the necessity and propriety of granting federal eminent domain to interstate coal pipelines. The Natural Gas Act of 1938, 15 U.S.C. § 717, *et seq.*, initially did not grant the right of eminent domain to natural gas pipelines certificated under that act. However, it soon became apparent that state eminent domain would not be available for acquiring rights-of-way for interstate pipelines in states not served by those pipelines. This problem was described in detail in Senate Report No. 429 (80th Cong., 1st Sess.) which accompanied S. 1028, the 1947 amendment to the Natural Gas Act granting interstate natural gas pipelines the federal right of eminent domain.

> In some States the statutes are broad enough to grant the right of eminent domain to interstate natural gas companies which are regulated under the Natural Gas Act, but in many of the States . . ., the constitutions and statutes of such States, which confer the right of eminent domain, provide that property may be taken for public use. The term 'public use' has been construed by the courts to mean for the use of the public of the particular State conferring the right of eminent domain.
>
> In *Shedd et al. v. Northern Indiana Public Service Co.* (188 N.E. 322, 90 A.L.R. 1020), the Supreme Court of Indiana said:
>
> > The State of Indiana has no power of eminent domain for uses constituting interstate commerce over which the United States alone has the sovereign right of control and regulation . . . . The test must be, is the use a public use within this State, and does it serve the interests of the people within the State?
> >
> > . . . The operation of the pipeline would not be for the benefit of the public in those States crossed by the pipeline but

> in which there is no distribution of natural gas by such line. But it is necessary to cross those States in carrying out the certificate granted by the Federal Power Commission. 1/

The Supreme Court of the United States stated the rule as follows:

> The proper view of the right of eminent domain seems to be, that it is a right belonging to a sovereignty to take private property for its own public uses, and not for those of another. Beyond that, there exists no necessity, which alone is the foundation of the right. If the United States has the power, it must be complete in itself. It can neither be enlarged nor diminished by a State. Nor can any State prescribe the manner in which it must be exercised. The consent of a State can never be a condition precedent to its enjoyment. Kohl v. United States, 91 U.S. 367, 373-74, 23 L.Ed. 449, 452 (1876).

Thus, it is clear that federal eminent domain is necessary to cross states not served by interstate pipelines.

In addition, granting federal eminent domain to interstate pipelines is an appropriate exercise of the Federal Government's responsibility to regulate interstate commerce. This responsibility was summarized well in the same Senate report on the 1947 amendments to the Natural Gas Act.

> Therefore, the Congress of the United States in carrying out its constitutional authority to regulate interstate commerce should correct this deficiency and omission in the Natural Gas Act by the passage of Senate bill 1028 which confers the right of eminent domain upon those natural gas companies which have qualified under the

---

1/ Shedd v. Northern Indiana Public Service Co., 206 Ind. 35, 188 N.E. 322 (Ind. 1934); Gover Irrigation & Land Co. v. Lovella Ditch R. & Irrigation Co., 21 Wyo. 204, 131 P. 43 (Wyo. 1913); Wooster v. Great Falls Manufacturing Co., 39 Me. 246 (Maine 1855); Salisbury Mills v. Forsaith, 57 N.H. 124 (N.H. 1876); Columbia Water Works Co. v. Long, 121 Ala. 245 (Ala. 1898); Washington Water Power Co. v. Water, 19 Idaho 595 (Idaho 1911); Carneige Natural Gas Co. v. Swinger, 72 W.Va. 557, 79 S.E. 3 (1913) (W. Va. 1913).

> Natural Gas Act to carry out and perform the terms of any certificate of public convenience and necessity acquired from the Federal Power Commission under the act.
>
> * * *
>
> . . . . Thus, the right of an interstate natural gas pipeline to cross intervening States in which no service is performed is a necessary protection of the free flow of commerce among the States and which can only be furnished by the Congress under its paramount jurisdiction to regulate interstate commerce . . .
>
> It has also been suggested that the granting of the right of eminent domain is a matter peculiarly within the legislative and constitutional purview of the States and that it is proper that such rights should rest with the States in order that the States may therefore be in a position to require a natural-gas pipeline company entering the State to serve the people of that State as a condition to obtaining the right of eminent domain. This argument defeats the very objectives of the Natural Gas Act . . . .
>
> As stated above, it is within the constitutional authority of Congress to regulate interstate commerce. In the performance of that constitutional authority, it is proper for the Congress to furnish proper necessary protection of the free flow of interstate commerce . . . .
>
> S. 1028 does not invade or interfere with the right of the States to impose any proper regulation upon intrastate activities, since its application is limited to exclusive interstate operations with respect to which the States may not constitutionally legislate.

The question has arisen whether the situation which mandated the 1947 amendment to the Natural Gas Act no longer exists because the states have relaxed their "public use" standards. It is simply not true to suggest that the public use standards no longer present significant obstacles for interstate coal pipelines. The determination of what constitutes a public use for purposes of state eminent domain is purely a matter of state law. The states vary significantly among themselves on this issue.

The situation referred to in the Senate Report still continues. None of the cases cited by the Senate Report have been overruled. For instance, Arkansas law on this matter, cited in the 1947 Senate Report, has recently been reaffirmed in an opinion by its Supreme Court. Starr Farms, Inc. v. Southwestern Electric Co., 271 Ark. 137 (Ark. 1980). The law on this point in the State of Florida is set out in an often-cited 1967 opinion:

> A State's power exists only within its territorial limits for the use and benefit of the people within the state. Thus, property in one state cannot be condemned for the sole purpose of serving a public use in another state. Clark v. Gulf Power Co., 198 So.2d 368, 371 (S. Ct. App. Fla. 1967) (emphasis supplied).

Any assertion that states have relaxed the "public use" standard in the years since the 1947 amendment to the Natural Gas Act is dispelled by considering the thorough and scholarly treatment of the eminent domain issue by the Supreme Court of North Dakota in its recent opinion, Square Butte Electric Cooperative v. Hilken, 244 N.W.2d 519 (N.D. 1976). See also Montana Power Co. v. Bokma, 457 P.2d 769 (Mont. 1969). In Square Butte, the court described the two lines of authority on "public use" -- what the court termed the "narrow" and "broad" views. Under the "narrow" view, the entity seeking to exercise eminent domain must actually provide service to the public in that state. The "broad" view recognizes a public use if the entity is subject to state regulation, has the potential for servicing local citizens, or provides other direct benefits to the citizens of the state.

Recognizing that some states still applied a "narrow" view, the divided court in Square Butte held that, even under a broad public interest standard, an out-of-state utility must prove a number of benefits which the eminent domain grant would provide to the people of North Dakota. The majority found the electric transmission line involved in that case constituted a public use only because of the cumulative nature of such factors as an increase in power reserves, stabilization of the local power grid, and the likelihood that North Dakota consumers would actually receive power from the project. Even then, two dissents were filed which argued that the benefits to North Dakota were too speculative.

It is important to stress that some coal pipelines may not be able to show even the minimal benefits required by the court in *Square Butte*, *e.g.*, in those cases where the pipeline simply passes through a state and does not supply coal to utilities serving that state. Suffice it to say that even in states with "broad" public use standards, coal slurry pipelines would be at a singular disadvantage. Moreover, even if it is argued that coal pipelines could satisfy the "broad" public use test in a particular state, because the outcome of such a test is always problemmatical, there is a "serious problem of holdup suits by property owners using dilatory litigation as a bargaining technique." *Note, State Constitutional Limitations on the Power of Eminent Domain*, 77 Harvard L. Rev. 717, 718 (1964). The incentive for such needless litigation would be lessened under a federal standard. In addition, the "narrow" view remains the law in many states. Indeed, Indiana, whose supreme court applied the narrow view in *Shedd*, *supra*, subsequently adopted the narrow view statutorily. *See* Ind. Stat. Ann. §§ 32-11-3-1, 32-11-4-2. Maine has also adopted the narrow view by statute. Me. Rev. Stat. Ann. title 35, § 2533.

These public use standards have not eroded whatsoever in the light of the Supreme Court's opinion in *Berman v. Parker*, 348 U.S. 26 (1954). *Berman* stands for the proposition that under the United States Constitution Congress may adopt a broad public use test for the exercise of eminent domain in the District of Columbia. It does *not* mandate that Congress adopt such a test and does *not hold* that a narrow public use test would be unconstitutional. In any regard, this is irrelevant to a determination under *state* law whether a particular state will adopt the broad or narrow view of public use. Some states had broad public use tests in 1947 but other states did not. *Berman* does not affect the law in those states which continue to have narrow public use standards. 2/

2/ Indeed, to interpret *Berman* as saying the United States Constitution requires states to adopt a "broad" view of public use would be to suggest an impermissible federal encroachment on legitimate states' rights to determine their own laws.

Vinson and Elkins

May 6, 1982

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MAY 24 1982

FOR RECORD

May 21, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
MAY 25 1982
WASHINGTON, D. C. 20510

The Honorable James A. McClure
Chairman, Senate Committee on
Energy and Natural Resources
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

At your Committee's hearings on May 10, you asked me a number of questions regarding the feasibility of using oil in place of water as a coal slurry medium. I tried to indicate that although work was being done on coal/oil mixtures, they had not yet been perfected and that the only presently workable coal slurry technology is that based on coal/water mixtures.

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Sincerely,

Ross Workman
Chairman

RW:gsk
Attachment
cc: Committee Members

THE OIL DAILY 5/14/82

Coal-Oil Fuel Mixture Problems Lead EPRI To Coal-Water Tests

By Steve Marcy
Coal Industry News

WASHINGTON — Continued coagulation problems with coal-oil mixtures has caused the Electric Power Research Institute to nearly abandon them in favor of more promising coal-water mixtures.

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Utilities could take delivery of coal-water either by barge or pipeline and burn the mixture in oil-fired boilers, especially if the boiler was at one time originally designed for coal but had been converted to oil.

The need for any combustion-gas cleanup and the degree to which slagging on the boiler tubes and other factors which could reduce electric power output are the two major questions that must be answered before coal-water can be commercialized, Culler said.

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Fluidized Bed Gains

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The use of pressurized fluidized bed combustors with gas turbines, theoretically the most efficient use for them, has one technological problem that has some German representatives of ICCR less optimistic than Culler.

The **Chairman**. Thank you very much, gentlemen. I appreciate your testimony.

Mr. Charles D. Gray, assistant general counsel for the National Association for Regulatory Utility Commissioners.

STATEMENT OF CHARLES D. GRAY, ASSISTANT GENERAL COUNSEL, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS, WASHINGTON, D.C.

Mr. **Gray**. Good afternoon.

The **Chairman**. Your entire statement will be made part of the record. I'd appreciate it if you could summarize it.

Mr. **Gray**. My name is Charles Gray, I'm assistant general counsel at the National Association for Regulatory Utility Commissioners. I'm accompanied today by Rita Barman who is director of Congressional Relations.

We have submitted a statement for the record. We've made some additional clarifications which we would like to submit in a supplementary statement which we'd also like to have printed in addition to our statement in the record.

Briefly, we're the national representative of the State public service commissions who exercise jurisdiction on electric utilities for the purpose of this.

I'd like to briefly describe the substance of our position on not only this legislation but the general proposition of coal slurry pipelines as related to electric utility ratemaking which is our primary focus in this matter. We have not yet developed a position on the issue of Federal eminent domain legislation. We're an association that works on a consensus theory and we have not yet reached a consensus of our members on that.

However, we do have two concerns that our association has formulated positions on. The first has to do with the level of rates that a slurry pipeline may charge, and we'd be very interested in insuring that they not be unreasonably high. The experience of our members with the rail transportation rates for coal led us to the conclusion that electric ratepayers can be severely disadvantaged through coal transportation rates.

The second issue that we would like to bring to your attention is the question of pipeline safety, after the pipelines are built and operating.

First of all, concerning rates, as I noted, the electric utilities will be the major customer of pipeline transportation services. Therefore, we support the concept in the House bill as amended by the House Public Works and Transportation Subcommittee, H.R. 4230, which grants the Interstate Commerce Commission the jurisdiction to review pipeline rates in the case of common carriage and contracts between pipelines and shippers in the case of contract carriage.

Now, we fully realize that most of this transportation will be under long-term contract for reasons of financing and long-term construction contracts. We, therefore, believe that the ICC review of the contracts will afford some assurance that these contracts will be in the public interest.

We have offered an amendment in the House concerning this issue and we would like to have the respective State commission exercise jurisdiction over the electric rates of the utility in question involved at the earliest possible time. Therefore, we have offered an amendment to the House legislation which would require that the ICC involve the State commission through requesting the commission to participate in the proceeding before the approval of the contract.

Now, we fully recognize that the States will exercise some authority to pursue the normal regulatory activities concerning electric utilities over the slurry contracts, but just to make sure that the States are involved at the earliest time, I believe that our amendment is a worthwhile addition to the House bill.

Second, concerning the issue of safety, we are pleased that the legislation before this committee, S. 1844, does not contain provisions similar to the House legislation which preempts State regulation of slurry pipeline practices. We recognize though that, generally, these kinds of safety statutes in the progressive legislative channels do usually involve preemptive language. Should such legislation progress through the Senate and through Congress, we would recommend to your attention the Natural Gas Pipeline Safety Act as an example of what we consider to be a workable statute for a State-Federal partnership in which the States join the Federal Government to enforce Federal safety standards.

We've included in our written statement legislative language which will establish such a program.

That concludes my statement. Thank you for giving me this opportunity.

[The prepared statement of Mr. Gray follows:]

UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

STATEMENT BY

CHARLES D. GRAY
ASSISTANT GENERAL COUNSEL

FOR THE

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS
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ON

S. 1844, A BILL PROPOSING THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

MAY 10, 1982

1889

Good afternoon, Mr. Chairman and Distinguished Members of the Committee:

My name is Charles D. Gray. I am Assistant General Counsel of the National Association of Regulatory Utility Commissioners, commonly referred to as "the NARUC", on whose behalf I am appearing today.

The NARUC is a quasi-governmental, non-profit organization founded in 1889. Within our membership are the governmental agencies of the fifty States, the District of Columbia, Puerto Rico and the Virgin Islands which are engaged in the regulation of utilities and carriers. Our chief objective is to serve the consumer interest by seeking to improve the quality and effectiveness of public regulation in America.

More specifically, our members include those State officials who are charged with the duty of regulating electric utility companies within their respective borders. As such, they have the obligation of assuring the establishment of such electric services and facilities as may be required by the public convenience and necessity, and the furnishing of dependable service at rates that are just and reasonable.

The members of our Association appreciate this opportunity you have provided me to express their views on S. 1844, a bill proposing the Coal Distribution and Utilization Act of 1981. The NARUC has taken no formal position on this legislation's primary purpose: to facilitate the national distribution and utilization of domestic coal by granting the Federal power of eminent domain to those interstate coal pipeline distribution systems that are determined to be in the National interest.

We are keenly aware, however, of the fact that electric utilities are expected to be the prime market for coal slurry transportation services. Moreover, because coal pipeline carrier costs are expected to be substantially below those of rail companies, it is probable that many electric utilities will become the captive shippers of these pipeline systems. Hence, we are concerned that any legislation which the Congress chooses to enact in an effort to encourage the construction of these pipelines contains sufficient protection against undue profit-making by coal pipeline carriers, since unreasonable rates would ultimately be borne by the utility ratepayers.

Another concern of the NARUC revolves around the provision of safety inspection programs for coal pipeline systems. Many of the State regulatory authorities within our membership have been active participants in a Federal-State partnership for the purpose of enforcing Federal safety standards for our Nation's railways and natural gas pipeline networks. The NARUC supports inclusion of language in S. 1844 which would provide for the establishment of a comparable Federal-State safety program for coal pipelines.

In the remainder of my testimony, I will elaborate these concerns very briefly and suggest possible strategies to accomodating them within the context of S. 1844.

Protection of Public Utility Ratepayers

Of the bills currently under consideration by Congress which would facilitate coal transportation via slurry pipelines, the NARUC believes that the substitute version of H.R. 4230, now pending in the House Committee on Public Works and Transportation after being reported favorably by its Surface Transportation Subcommittee, embodies the most preferable approach. Unlike the Senate bill, the House Public Works version addresses the authority of the Interstate Commerce Commission (ICC) in connection with coal pipeline operations--a regulatory issue that should be resolved prior to any Congressional action conferring the right of Federal eminent domain on these carriers. Accordingly, if this Committee chooses to go forward with coal pipeline legislation, we urge that it be revised to conform with the provisions of H.R. 4230 as amended by the House Public Works Subcommittee on Surface Transportation.

Under this House bill, a coal pipeline carrier would elect to provide coal transportation either as a common carrier, subject to rate regulation by the ICC, or as a contract carrier not subject to ICC rate regulation. This election would be left to the discretion of the carrier, rather than the affected shippers. Before their contracts with shippers would become effective, however, contract carriers would be required to submit their contracts to the ICC for its approval.

As I stated earlier, many electric utilities are likely to become the captive shippers of coal pipeline carriers, due to the anticipated reduced rates which pipeline systems would be in a position to offer if the Federal eminent domain rights are available. For this reason, we consider the House bill's provisions requiring ICC review of the contracts to be an important step in the direction of properly protecting shippers, and ultimately, utility ratepayers.

The NARUC believes the House bill's approach in this regard would be improved with the addition of language requiring the ICC to refer proposed contracts between coal pipeline carriers and public utilities to the appropriate State rate regulatory authorities for their comments prior to ICC approval or disapproval of the contract.[1/] This would have the effect of directing the ICC to grant the responsible State authority a preferred position in the contract review process and would ensure that State input is taken into account prior to ICC approval of the contract.

State regulatory commissions will be involved, of course, in review of electric utility coal carriers contractual arrangements to the extent that these arrangements impact on the utility's cost of service, in order to ensure that all costs recovered from ratepayers are just and reasonable. This suggested amendment to the House bill requiring pre-notification of the States in an ICC coal slurry carrier contract review proceeding would further protect the ratepayers' interests by guaranteeing State authorities the opportunity to review such arrangements before they are finalized.

Public Safety

The NARUC was pleased to note that the House committee's substitute version of H.R. 4230 also addresses the need to establish safety standards for the design, installation, inspection, operation and maintenance of coal slurry pipelines and related

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[1/] This amendment may be made by adding to Section 10955(b) of the House Committee Print of H.R. 4230, March 26, 1982, page 18, the following language:

> "Within 10 days of the date that a contract between a coal pipeline carrier and a public utility is filed, the Commission shall furnish a copy of such contract to the State regulatory authority or authorities exercising ratemaking authority over the contracting utility. Not later than 60 days after the contract is provided to the State regulatory authority or authorities by the Commission, such authorities may submit to the Commission comments on the contract, which may include recommendations that the contract by approved or disapproved."

facilities. We believe, however, that its provisions preempting State safety regulation of coal pipeline facilities would be improved with the addition of a section that provides for the establishment of a State/Federal partnership in monitoring and enforcing the Secretary of Transportation's coal pipeline safety standards. Such a program was established under Section 5 of the Natural Gas Pipeline Safety Act of 1968,[2] and has since become an important cornerstone in ensuring an adequate safety inspection effort for gas pipelines throughout the Nation.

Under this program, administered by the Department of Transportation (DOT), States willing to monitor gas pipelines and enforce Federal safety standards are permitted to receive annual certification of their safety program from DOT. Once certified, a State is permitted to inspect pipelines and enforce Federal law. In return for providing this service to the Federal government, a State may receive Federal grant-in-aid for to up to 50 percent of the costs of its pipeline safety effort. States unable or unwilling to receive full certification may enter into agreements with the Department of Transportation enabling the State to monitor gas distribution pipelines under a more informal agreement than full certification.

This type of State/Federal partnership arrangement, also embodied in DOT's rail safety State participation program,[3] clearly reduces the need for establishing a large Federal field staff. It thereby permits the Congress to implement its national safety program for far less than it would otherwise cost for the Federal Government to assume the entire financial burden. In other words, the enlistment of the States by means of matching funds in effect pulls State money into the Federal program.[4]

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[2] 49 U.S.C. §§ 1671-1684.

[3] Established under 206 of the Federal Railroad Safety Act of 1970 (49 U.S.C.§ 435).

Conclusion

The NARUC believes that if it is the will of the Congress to enact legislation to facilitate the development of coal slurry pipeline transportation systems, the subcommittee substitute of H.R. 4230 pending in the House Public Works Committee is the most preferable approach. In addition, this House bill would better protect the interests of public utility ratepayers as well as the public safety if the revisions I have just described were incorporated within its provisions. Accordingly, we urge your support for this position.

Thank you for your attention.

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[4] For specific amendatory language incorporating this proposal, see Appendix.

APPENDIX

NARUC Proposed Amendment to the Committee Print of March 26, 1982 of H.R. 4230, A Bill Proposing the Coal Pipeline Act of 1982

The following new section is hereby added at the end of the above Bill.

State Safety Enforcement

Sec. 13. (a) The provisions of sections 11 and 12 of this Act shall not apply to coal pipeline facilities within a State when the safety standards and practices applicable to same are regulated by a State agency which submits to the Secretary an annual certification that such State agency (1) has regulatory jurisdiction over the safety standards and practices of such pipeline facilities; (2) has adopted each Federal safety standard applicable to such pipeline facilities established under this Act as of the date of the certification; (3) is enforcing each such standard; and (4) has the authority to require record maintenance, reporting, and inspection substantially the same as are provided under regulations adopted by the Secretary of Transportation; and that the law of the State makes provision for the enforcement of the safety standards of such State agency by way of injunctive and monetary sanctions substantially the same as are provided under sections 11 and 12 of this Act; except that a State agency may file a certification under this subsection without regard to the requirement of injunctive and monetary sanctions under State law for a period of not to exceed five years after the effective date of this Act. Each annual certification shall include a report, in such form as the Secretary may by regulation provide, showing (i) name and address of each person subject to the safety jurisdiction of the State agency; (ii) all accidents or incidents reported during the preceding twelve months by each such person involving personal injury requiring hospitalization, fatality, or property damage exceeding $1,000, together with a summary of the State agency's investigation as to the cause and circumstances surrounding such accident or incident; (iii) the record maintenance, reporting, and inspection practiced by the State agency to enforce compliance with such Federal safety standards, including a detail of the number of inspections made of pipeline facilities by the State agency during the preceding twelve months; and (iv) such other information as the Secretary may require. The report included with the first annual certification need not show information unavailable at that time. If after receipt of annual certification, the Secretary determines that the State agency is not satisfactorily enforcing compliance with Federal safety standards, he may, on reasonable notice and after opportunity for hearing, reject the certification or take such other action as he deems appropriate to achieve adequate enforcement including the assertion of Federal jurisdiction. When such notice is given by the Secretary, the burden of proof shall be upon the State agency to show that it is satisfactorily enforcing compliance with Federal safety standards.

(b) With respect to any coal pipeline facilities for which the Secretary does not receive an annual certification under subsection (a) of this section, the Secretary is authorized by agreement with a State agency to authorize such agency to assume responsibility for, and carry out on behalf of the Secretary as it relates to coal pipeline facilities the necessary actions to--

(1) establish an adequate program for record maintenance, reporting, and inspection designed to assist compliance with Federal safety standards;

(2) implement a compliance program acceptable to the Secretary including provision for inspection of coal pipeline facilities;

(3) cooperate fully in a system of Federal monitoring of such compliance program and reporting under regulations prescribed by the Secretary.

Any agreement executed pursuant to this subsection shall require the State agency promptly to notify the Secretary of any violation or probable violation of a Federal safety standard which it discovers as a result of its program.

(c)(1) Except as otherwise provided in this section, if an application is submitted not later than September 30 in any calendar year, the Secretary shall pay out of funds appropriated or otherwise made available up to 50 per centum of the cost of the personnel, equipment, and activities of a State agency reasonably required, during the following calendar year to carry out a safety program under a certification under subsection (a) or an agreement under subsection (b) of this section. The Secretary may, after notice and consultation with a State agency, withhold all or any part of the funds for a particular State agency if he determines that such State agency is not satisfactorily carrying out a safety program under a certification under subsection (a) or an agreement under subsection (b) of this section. No such payment shall be made unless the State agency making application under this subsection gives assurances satisfactory to the Secretary that the State agency will provide the remaining cost of such a safety program.

(2) Funds authorized to be appropriated shall be allocated among the several States for payments to aid in the conduct of coal pipeline safety programs in accordance with paragraph (1) of this subsection.

(3) Payments under this section may be made in installments, in advance or by way of reimbursement, with necessary adjustments on account of overpayments and underpayments.

(4) The Secretary may, by regulation, provide for the form and manner of filing of applications under this section, and for such reporting and fiscal procedures as he deems necessary to assure the proper accounting for Federal funds.

(d) A certification which is in effect under subsection (a) of this section shall not apply with respect to any new or amended Federal safety standard for coal pipeline facilities established pursuant to this Act after the date of such certification. The provisions of this Act shall apply to any such new amended Federal safety standard until the State agency has adopted such standard and has submitted an appropriate certification in accordance with the provisions of subsection (a) of this section.

(e) Any agreement under this section may be terminated by the Secretary if, after notice and opportunity for a hearing, he finds that the State agency has failed to comply with any provision of such agreement. Such finding and termination shall be published in the Federal Register, and shall become effective no sooner than fifteen days after the date of publication.

The CHAIRMAN. Thank you very much.

I'm a little puzzled to know if we are confining our immediate vision to coal-water slurry. What is it that is of such concern to you about the safety consideration?

Mr. GRAY. I assume that there are going to be problems in terms of monitoring these pipelines for leakage and other questions. Natural gas has a similar sort of——

The CHAIRMAN. Natural gas is quite a different hazard involved. If we had a different kind of slurry mixture in these pipelines we might run into a different kind of hazard, but I'm a little puzzled to know what the public hazard is that is involved, even if the pipeline does leak, and I understand you could have some environmental concerns——

Mr. GRAY. I believe these are the concerns. We prefer that no legislation at all, as this bill does, have no specific safety language in it. The House bill did establish a safety program run by the Federal Government which would preempt anything the States would like to do if they did see a safety problem.

The CHAIRMAN. You underscore in your statement that you are concerned about whether or not utilities become captive shippers. I heard Mr. Samples this morning talking about the example where the railroad successfully lowered rates and put a pipeline out of business. Isn't that a desirable thing from your standpoint?

Mr. GRAY. Yes, I believe it is. The pipeline is built and exists and acts as a continuing check.

The CHAIRMAN. You'd like to see them built, compete, but neither one of them being captive?

Mr. GRAY. Exactly.

The CHAIRMAN. How would you feel about separation from pipelines and railroad ownerships?

Mr. GRAY. The association has, we haven't reached that. It would seem to me from a competitive standpoint that yes, it would be preferable.

Senator JOHNSTON. You say you do not have any safety concerns, that whatever concerns are environmental concerns?

Mr. GRAY. I am by no means an expert on what the precise kinds of safety problems that a local community would confront that has a pipeline going through its borders. It would seem to me it would take one serious event and there would be a great deal of political pressure on the States.

Senator JOHNSTON. I share the chairman's view. What kind of serious event? Water all over the ground or something?

Mr. GRAY. I suppose if the slurry was leaking into a town's surface water supply or something. Again, this is something that came up in the House legislation. We have no real urge to see such legislation, but if there is, we see somewhere down the road a State may want to pass a law, and if it does it will be preempted under the House bill.

Senator JOHNSTON. And if it's preempted, and if it existed, you would be concerned?

Mr. GRAY. It's very hypothetical.

The CHAIRMAN. Thank you very much. We appreciate your testimony.

[Subsequent to the hearing Mr. Gray submitted the following:]

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May 14, 1982

The Honorable James A. McClure
Chairman
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Re: Further Comments on S. 1844,
A bill Proposing the Coal
Distribution and Utilization
Act of 1981

Dear Senator McClure:

Thank you for the opportunity you provided me this week to express the views of the National Association of Regulatory Utility Commissioners (NARUC) regarding the above-mentioned legislation. This letter will clarify the NARUC's position with respect to the two areas of concern addressed in my testimony before the Committee during the hearing on May 10, 1982: namely, the need to ensure protection of the interests of public utility ratepayers, who are likely to bear much of the potential burden of unreasonable coal pipeline rates; and the issue of establishing environmental and public safety standards applicable to the construction and maintenance of coal pipelines and related facilities.

Protection of Utility Ratepayers

Regarding the first of these concerns, as I stated in my testimony, the NARUC recognizes that many electric utility companies are likely to become the captive shippers of coal slurry pipeline carriers, due to the anticipated reduced rates which pipeline systems would be in a position to offer (vis-a-vis rail carriers) if the right of Federal eminent domain is available to aid in their construction efforts. We therefore consider those provisions of the House Public Works and Transportation Committee's pending version of H.R. 4230 that address the need for regulatory oversight of these pipelines' rates to represent a farsighted and appropriate means of protecting utility ratepayers.

Our testimony in this regard may have left the members of the Committee with the impression that the NARUC favors the House bill's option for coal pipeline contract carriage, subject to Interstate Commerce Commission (ICC) approval of the contract, rather than its option for direct ICC rate regulation of slurry carriers. To the contrary, our members fully recognize that direct rate regulation would represent the most comprehensive protection possible against undue profit-making by coal pipelines.

However, the NARUC is also cognizant of the reality that, given the availability of these two regulatory options, virtually all coal pipeline companies will choose to operate as contract, rather than common carriers. For this reason, we focused our analysis on strategies to ensure the protection of electric utility ratepayers' interest, given the probable scenario in which their utility would depend on contractual negotiations to obtain reasonable coal transportation rates. As I explained during the hearing, we believe that ICC review of pipeline contracts would better protect utility ratepayers if the ICC is directed to refer utility/pipeline contracts to the appropriate State regulatory authorities prior to final action on the contract.

Although treated as an alternative to rate regulation, the ICC's contract review process envisioned in the House bill is expected to rely upon rates prescribed in the contract, subject to adjustment by reference to the Consumer Price Index or some similar yardstick. In light of this expectation, and assuming adoption of the NARUC's proposed amendment regarding State pre-notification, we believe that the House bill's contract carriage option can be administered so as to provide protection for utility ratepayers comparable to that available through direct ICC rate regulation.

Coal Pipeline Safety

The NARUC's prepared statement submitted in connection with this week's hearing on S. 1844 failed to reflect the fact that the Association prefers the position evidenced in this bill with respect to the establishment of environmental and public safety standards for coal slurry pipelines: i.e., in choosing not to prescribe Federal standards applicable to these pipelines, S. 1844's authors have made the wise decision to leave this important matter to the States for disposition as each deems appropriate in the exercise of its inherent safety authority.

Should, however, this Committee decide to incorporate language within S. 1844 establishing such Federal standards, the NARUC respectfully requests that it also include its proposed amendment creating a Federal/State partnership for the purpose of monitoring and enforcing those standards established by the U.S. Secretary of Transportation. This proposed amendment was included as an appendix to the NARUC's submitted statement.

Conclusion

In the event that you and your distinguished colleagues in Congress choose to move forward with legislation to encourage the development of coal slurry pipelines, the members of the NARUC urge you to give careful thought to the concerns raised in my testimony and elaborated herein. Should the Committee or its staff require any additional information on these matters, please feel free to contact me.

Sincerely,

Charles D Gray

Charles D. Gray
Assistant General Counsel

The Chairman. Next we will have a panel, Mr. Richard E. Briggs, American Association of Railroads; Mr. William G. Mahoney on behalf of Railway Labor Executives Association; Philip Brown, vice president of Corporate Affairs, Kansas City Southern Railway Co.; Leo Winger, chairman of the Railway Progress Institute; and I understand Mr. George DeHague, a railroad coordinater of the International Association of Machinists.

Gentlemen, I think you are all aware we've been placing your prepared statements in the record in full. I would invite you to summarize your statements. I might indicate here that the attachments that have been appended to the statements furnished to the committee will be made a part of the record as well as the statement itself.

With that I will call on Mr. Briggs.

STATEMENT OF RICHARD E. BRIGGS, EXECUTIVE VICE PRESIDENT, AMERICAN ASSOCIATION OF RAILROADS, WASHINGTON, D.C., ON BEHALF OF WILLIAM H. DEMPSEY, PRESIDENT, AMERICAN ASSOCIATION OF RAILROADS

Mr. Briggs. Thank you, Senator McClure. The Association of American Railroads represents about 97 percent of the railroad industry. We deeply appreciate the opportunity to appear before you to present our views on S. 1844. This bill is another in a long series of bills attempting to confer on coal slurry pipelines the right to exercise the power of Federal eminent domain. Past Congresses have concluded that passage of such legislation would not be in the public interest. Nothing has happened which would justify a change in that position.

Coal is the single most important source of railroad traffic and revenues. It represents 35 percent of total tons originated, and about 19 percent of our gross. That is also one of the areas where there is real growth in the railroad industry. We currently move about two-thirds of the Nation's coal production.

The coal slurry pipelines admittedly seek to siphon away the high volume, and only the high volume, coal traffic which is the most profitable portion of the coal transportation business.

I do not mean to imply from that that the railroads fear legitimate competition, from pipelines or any other mode. But true competition would not take place between railroads and coal slurry pipelines. Not one mile of pipeline will be built until the entire capacity of the proposed pipeline is committed irreparably, in advance, to long term "take-or-pay" contracts. Once a coal slurry pipeline is constructed, no competition can take place. No amount of rate-cutting or imaginative marketing by the railroads can regain that traffic.

According to the National Coal Association estimates, U.S. coal production will only increase at the rate of about 4½ percent per year through 1990. The effect of such massive traffic shifts on the railroads cannot possibly be made up by the growth in coal production.

Coal slurry pipelines, those presently planned, could reduce the railroad's current 66-percent participation in coal transportation to as little as 45 percent. What would happen to railroad profitability? Let's take a look at the 1978 OTA study. They estimated there on the basis of six slurry pipelines and we are now proposing that 13 are on the drawing board, by the year 2000 the railroads would lose some $688 million in net rail rate operating revenues. $688 million measured in 1971 dollars.

I would like to emphasize to this committee that is more money than the railroad industry made last year, and last year was the best year we have had in 25 years. For many years it has been claimed that coal slurry pipelines were needed to provide additional capacity for the transportation of needed coal. I would submit to this committee that the record of the last decade demonstrates conclusively that railroads and other existing elements of the transportation infrastructure have all the transportation capacity that is needed, in fact for years. The problem in the railroad industry has been too little traffic on too much track.

In the West, coal transportation by railroad has quadrupled in 10 years. We have never had a single significant shortage of equipment. In fact today you can go out and look on some western line, you can find miles and miles of coal cars in storage. In the last 4 years we increased export coal from 300,000 tons to 33 million tons without any significant problems in terms of domestic rail transportation.

The rail industry with its vast underutilized capacity simply is in the ideal position to move all the additional coal that needs to be moved. It is claimed by some that a justification for Federal eminent domain legislation is the fact that the coal slurry pipelines would offer cost savings to utilities and consumers of electric power. Those claims are based on estimated construction costs of the pipelines. For a period of 6 years the pipeline costs were left at their original estimate despite repeated inquiries by congressional sources. No revelation was made as to the updated cost.

I don't have to remind this committee of the history of cost overruns in pipeline projects. The Alaska oil pipeline cost more than was originally proposed. Now we're looking at a natural gas pipeline from Alaska to Canada. The original estimates on that were $10 billion. The current estimate is $40 billion, and construction has not yet commenced. Thus any projection of pipeline rates which is based on preliminary construction costs and future high inflation assumptions must be considered suspect.

Let me turn to some of the specifics of S. 1844. The proposed legislation offers no adequate protection for water rights. States upstream would sell their water to a pipeline promoter to the detriment of farmers, ranchers, and other water users in adjacent sectors. Certainly agriculture does not have the capacity to pay the price that coal slurry pipelines would be willing to pay for water. The affected State governments would have little recourse. The 1978 OTA study noted that in each of the pipeline areas it studied except one, the demand for projected water from 1985 to 2000 exceeded supplies.

If a challenge to Nebraska law pending in the Supreme Court is successful under this bill, a State could have no control over the amount of water a coal slurry pipeline could obtain from a landowner residing in the State. In addition the bill does not even address the problems faced by States sharing an aquifer. If one State sharing an aquifer with another should choose to let a pipeline draw water from the aquifer, the other State would be powerless under this bill to prevent the loss of its share of the aquifer.

Furthermore, we note that under the bill the Department of Energy is assigned the responsibility for determining whether or not the applicant is fit to receive the privilege of Federal eminent domain. We find that surprising and in fact unwarranted. Certainly the Department of Energy is not in a position, at least as solid a position as the Interstate Commerce Commission, to determine whether the proposed method of transportation is the preferable method and should be accorded Federal eminent domain.

We also note that most previous proposals have problems regarding the Interstate Commerce Commission who apparently will be the final regulating body in this case, as the body which should have the original decision to make on Federal eminent domain.

We would also point out several other serious policy factors. Federal promotion of coal slurry pipelines is at cross purposes with public policy designed to alleviate unemployment. We all know where the unemployment figures are, unfortunately. It is clear from the dynamics of coal slurry pipelines as proposed that for each coal slurry pipeline job added there will be six railroad jobs lost. Add up the effects from the 13 proposed coal slurry pipelines and that would eliminate approximately 41,000 railroad jobs. That is approximately 10 percent of our current work force. It is also clear that the pipelines, by creating a redundant form of capacity and one which is inordinately capital intensive, would draw huge sums of capital from the private financing markets. These 13 pipelines are going to involve the drawdown of $30 billion in private capital.

In 1979 the total drawdown of capital in the United States by all sources was $120 million. It seems quite clear that if you add an increment of this enormous size, that you would have nothing but upward pressure on interest rates.

We also would point out that as drafted the present bill is silent on a variety of issues affecting the Interstate Commerce Commission and its jurisdiction.

Contrary to opinion, even with the improvements in the Staggers Act the railroads do not now have and would not have under this bill anything like the opportunities available to coal slurry pipelines. Coal slurry pipelines would be able to contract all of their capacity. This is specifically prescribed for railroads under the Staggers Act. They could go in and tie up their entire capacity, tie up the shippers for periods ranging from 20 to 25 years. This of course, would lock utilities into a static technology using one source of fuel in one form from one origin, from one destination, without the opportunity to gain from the advances of technology, fuel technology, utility production technology, and transportation technology.

In conclusion, I would like to repeat an observation I've made before in this controversy and that is this. If a group of promoters were to show up before Congress and ask for support for special laws for a scheme to be a new single commodity rail line in regions already well served by existing railroads, they would have little chance of success. The answer would be obvious, why build new capacity when you have existing capacity.

But this is exactly what is being proposed. The railroads are not the major block to coal slurry pipelines. It has been stated, not frequently, but certainly admitted to by the coal slurry pipelines, that we are only a small part of the problem. If this committee were to suggest they put legislation out giving coal slurry pipelines just the right of Federal eminent domain over railroad lines, they would walk away and refuse it. Because simply put, they want the land of the other property owners and they want to avoid the traditional types of conditions that States have placed on pipelines or anyone else when seeking the right of Federal eminent domain.

Similarly, in the area of equal condition, they may talk about the railroads being in a somewhat improved posture as a result of the Staggers Act, but it is clear that they will not tolerate nor do they intend to offer their surfaces under the same kind of regulatory responsibilities as the railroads. This puts us in a position where by special legislation it is proposed that coal slurry pipelines be allowed to skim off the cream of the railroad traffic while you continue to make the railroads carry forth their normal obligations to the rest of the public.

Given an industry of our meager profit margins, it is not difficult to see that any substantial erosion of the magnitude we are talking about here, would put the railroads in a position where it was impossible to carry on their responsibilities to their other shippers.

I thank you.

[The prepared statement of Mr. Dempsey follows:]

STATEMENT OF WILLIAM H. DEMPSEY

PRESIDENT, ASSOCIATION OF AMERICAN RAILROADS

BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

S.1844, THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

May 10, 1982

My name is William H. Dempsey. I am President of the Association of American Railroads, a trade association representing the nation's railroads. The Association's member roads operate approximately 97 percent of the railroad mileage and produce approximately 97 percent of the railroad operating revenues in the United States.

We appreciate the opportunity to appear before you to present the views of the railroad industry on S. 1844, the proposed Coal Distribution and Utilization Act of 1981. S. 1844 is another in a long series of bills attempting to confer on coal slurry pipelines the right to exercise the power of federal eminent domain. Past Congresses have concluded that passage of such legislation would not be in the public interest. Nothing has happened which would justify a change in that position.

The Railroad Interest

Admittedly, the railroad industry's opposition to legislation which would pre-empt states' rights and grant federal eminent domain powers to coal slurry pipelines is based, in part, upon self-interest.

Coal is the single most important source of railroad traffic and revenues.[1] Railroads currently move two-thirds of the nation's coal production.

Coal slurry pipelines seek to siphon away the high-volume -- and only the high-volume -- coal traffic which is the most profitable portion of the coal transportation business.

Because pipelines cannot function as true common carriers, they would select only premium traffic, leaving railroads -- common carriers in fact as well as in name -- to serve those shippers not desirable to the pipelines.

This is what is meant by the term "cream-skimming."

I do not mean to imply that the railroads fear legitimate competition -- from pipelines or any other mode. But true competition would not take place between railroads and coal slurry pipelines. Not one mile of pipeline will be built until the entire capacity of the proposed pipeline is committed, in advance, to

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1/ In 1981, coal accounted for 35 percent of total tons originated, and 18.4 percent of total operating revenues.

long-term "take-or-pay" contracts. Thus, once a slurry pipeline is constructed, no competition can take place. No amount of rate-cutting or imaginative marketing by the railroads can regain that traffic. Nor can railroads attempt to market all of their future capacity under contracts as may slurry pipelines.

The Coalstream pipeline is designed to transport 55 million tons of coal annually, and since the creation of a pipeline will not increase the demand for coal, that coal will have to shift from other modes -- primarily railroads. In 1980, the Family Lines Rail System (which includes the Louisville and Nashville Railroad), the Southern Railway System, and the Illinois Central Gulf Railroad combined carried 181 million tons of coal. If 55 million tons of coal annually are lost to the Coalstream pipeline, that will represent 30 percent of those railroads' total coal traffic. The effect on those railroads will be devastating.

But the effect would also be dramatic for eastern railroads, such as Chessie System, Norfolk and Western, and Conrail, since much of the coal hauled by southern railroads is originated from these three eastern carriers.

And Coalstream is but one of 13 coal slurry pipelines seriously proposed -- which, combined, could transport more than 250 million tons of coal annually.[2]

2/ Based upon public presentations by coal slurry pipeline interests. These pipelines include: San Marco, Allen-Warner (2), ETSI, Coalstream, NICES, VEPCO, Texas-Eastern, Pacific Bulk, PRPI, Texaco, Staten Island, and Colorado River.

And since, according to National Coal Association estimates, U.S. coal production will increase only about 4.5 percent annually through 1990 (from 824 million tons in 1981 to about 1.2 billion tons by 1990), the effect of such massive traffic shifts on the railroads cannot possibly be made up by the growth in coal production. Coal slurry pipelines could reduce the railroads' current 66 percent participation in coal transportation to as little as 45 percent -- with draconian effects on railroad profitability.

In 1980, the Congress passed the Staggers Rail Act which provided for substantial deregulation of the railroads. While provisions of the Staggers Act were designed to increase competition in transportation -- and indeed, have had that effect -- the underlying purpose of the Staggers Act was the revitalization of the nation's rail systems through the mechanisms of private enterprise. The Staggers Act represented a recognition by the Congress that, without improved earnings, the railroads would slide into financial ruin and eventual nationalization.

Since passage of the Act, railroad earnings have improved -- despite the current recession. However, continued strong coal traffic has been a major factor in keeping railroads solvent.

Loss of significant portions of this traffic and of opportunities for participation in its growth would severely harm some railroads now considered financially healthy. For railroads just beginning to emerge from "marginal" status, it could prove devastating.

A 1978 report by the Congressional Office of Technology Assessment (OTA) estimated that by the year 2000 railroads would lose some $688 million in net railway operating revenues, as measured in 1971 dollars. Most of this loss -- some $628 million -- would be suffered by Western railroads. Using 1971 dollars, last year, the entire railroad industry reported net railway operating revenues of only $675 million -- of which $366 million was reported by Western railroads. This revenue diversion would certainly have been enough to put the industry as a whole into the red. What makes this even more devastating is that it was based on the number of pipelines proposed in 1978. Since then, additional pipelines have been proposed. Their construction would make the position of the railroad industry even worse than was forecast by OTA.

And it would not even be necessary for the coal traffic to be lost. We have seen renewed investor confidence in railroads since the Staggers Act, but that confidence would be undermined if the passage of federal eminent domain for coal slurry pipelines clouded the prospects for continued growth in rail coal traffic.

It is important to note that the passage of the Staggers Act came because Congress recognized that a healthy railroad system is important to the public interest. Therefore, public policy which risks crippling an existing essential industry in order to foster one which cannot lay convincing claim to the public interest is without logic.

The Public Interest

Indeed, I would assert that the true public interest lies in denying special privilege to the promoters of coal slurry pipelines.

First, let us examine the claim that public interest requires that slurry pipeline builders be granted the extraordinary power -- on the federal level -- to obtain land regardless of the wishes of the owners or of the citizens and governments of the states through which they would pass.

For many years, it has been claimed that coal slurry pipelines were needed to provide additional capacity for the transportation of needed coal.

These claims should have been laid to rest when the Office of Technology Assessment, in a 1978 study mandated by the Congress, said that: "The capacity of rail systems can be expanded faster than can coal mining or electric power generation using coal, provided the necessary investments in local rail facilities are made."

If that was not enough, the U.S. Department of Transportation's Coal Transportation Task Force, in the same year, stated: "In many instances . . . the rail coal hauling capacity already exists and the expected new traffic will allow the railroads to make better and more efficient use of their heavy past investments." And "(it) appears that both the healthy and marginal railroads are finding bright prospects in investments in coal hauling facilities."

These findings have been validated by the marketplace. For the past three years, railroad coal traffic has been at record levels. Nevertheless, excess coal-carrying capacity has existed on the railroads during this period. During an extended period in 1981, the railroads were called upon to carry a level of coal traffic which implied a capacity of 680 million tons per year -- 136 million tons more than was actually moved. It is important to note that they handled this traffic with no requirement for additional trackage or cars. In fact, coal cars remained in surplus during the entire period.

For a railroad industry which is already transporting 70 percent of its traffic over but 20 percent of its lines, the general railroad problem of too much track for too little traffic would be further exacerbated by government promotion of a new competitor. AsI speak to you today, the nation's railroads have in storage 20,000 coal hopper cars -- cars available to move additional coal volumes if such volumes existed. Such additional coal traffic as develops will not be a problem -- it will be a solution.

As I mentioned, the National Coal Association sees only about a 4.5 percent average annual increase in production through the end of the century. This growth hardly presents a problem to the railroad industry which handled a 47 percent increase in total coal movements and a 95 percent increase in export coal over the past 10 years.

And I further point out that U.S. Department of Commerce has reported that "we have reached a plateau in coal exports," and the "surge" in coal exports experienced in 1980 and 1981 will not recur.[3] William Morris, the Commerce Department's Assistant Secretary for trade development, further told a recent coal conference that we already have in place the infrastructure to handle all future coal transportation demands.[4]

3/ Remarks before "Coal Under Reagan Conference," March 2, 1982, Loews L'E'nfant Plaza Hotel, Washington, D.C.

4/ Ibid.

Thus, it should be clear that there is no "excess" coal production for coal slurry pipelines to absorb. Any coal business sought by pipeline companies will be tonnage presently moving by rail or which could readily be absorbed by the existing rail system. Why should government promote such a shift in coal traffic when the railroads already have the ability to efficiently handle the traffic, and when such a shift will be financially devastating to an industry which has been fighting for economic survival?

It should be equally clear that coal slurry pipelines can make no claim that the public needs their services. They would, in fact, provide a redundant capacity.

Claims of Savings Doubtful

It is also claimed, as a justification for federal eminent domain legislation, that coal slurry pipelines would offer savings to utilities and consumers of electric power.

While this claim has been heard many times, very little of a concrete nature has been offered to support it.

For example, construction cost estimates have proven extremely elusive, and those which have been given must be viewed with doubt. For years, promoters of the Energy Transportation Systems Inc. pipeline (ETSI) pegged construction costs at $750 million, totally ignoring the rampant inflation affecting the rest of the economy.

Recently, promoters of the Coalstream pipeline estimated the cost of their 1,500-mile pipeline at about $1.5 million per mile. This figure, too, appears well below reality.

We should recall that the Alyeska oil pipeline was originally estimated at a cost of $800 million -- but the final cost was about

$9 billion. The original estimated cost for the controversial Alaska-Canada natural gas pipeline was $10 billion. The most recent cost estimate for this still-uncompleted pipeline is $40 billion -- about $8.3 million per mile.

Certainly terrain and climate conditions for those pipelines are different than those which would be encountered by coal pipeline builders in other regions -- but that is the point. The only thing pipeline projects seem to have in common is that they cost far, far more than was estimated, and their alleged cost advantages are largely dissipated in the process.

Thus, any projection of pipeline rates which is based on preliminary construction cost assumptions must be considered suspect.

As noted, not many pipeline promoters have gone beyond the unsupported assertion that pipelines, by their nature, would save money for consumers. One group -- the promoters of the Coalstream pipeline -- has been more specific. Let us examine their claims.

In a study financed by Coalstream, the consulting firm of A. T. Kearney, Inc., projected considerable savings.[5] However, the Kearney study began with the assumption that railroads would set coal rates at the maximum level that could be charged without Interstate Commerce Commission intervention.

The vast majority of coal rates are not now set at that level.

And, the history of railroad ratemaking, as it regards coal, shows that railroads have been generally cognizant of the need to protect their markets. Thus, in the 1950s and 60s when demand for

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5/ A. T. Kearney, Inc., Comparison of Projected Maximum Rail and Coal Slurry Pipeline Rates for Transporting Coal to Selected Southeast Utilities, May 1981.

coal was relatively low, railroads reduced rates to encourage sales. As coal production and use have increased, railroad rates have climbed along with coal prices -- but rail rates have not climbed as fast as coal prices. This is demonstrated by the fact that, nationwide, the rail transportation portion represents a lesser percentage of the total delivered price of coal than it did 20 years ago, even though we are hauling coal considerably longer distances today.

Thus, the Kearney study can be seen to be flawed as to its estimates of future rail coal rates.

We cannot know if the study is flawed with regard to pipeline rates, because these estimates were supplied to Kearney -- without accompanying methodology -- by Fluor Ocean Services, Inc. (Presumably they contained the same low construction costs alluded to earlier). The Kearney report noted this fact and disclaimed responsibility for the validity -- or lack thereof -- of the pipeline rate estimates.

Another study for Coalstream was done by National Economic Research Associates, Inc.[6] This study concluded that the Coalstream pipeline could save residential consumers of electric power in Georgia and Florida some $31.3 million in 1990 -- and still more in later years.

However, to arrive at this savings, NERA had to assume that no coal would be transported to those two states by any other mode.

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[6] National Economic Research Associates, Inc., Pipeline Transportation of Coal to Georgia and Florida: An Assessment of its Energy and Economic Benefits in the Light of National Policy, February 1980.

Obviously, this assumption is invalid.

Still, let us consider that figure of $31.3 million in 1990. Suppose it were true? What would it mean?

If you divide the total number of affected households into $31.3 million, you learn that each householder in those two states would save less than $5.70 per year -- or about 47 cents per month.

This, of course, assumes that the population in 1990 will be the same as that in 1980. It would be more reasonable to assume a greater population and a greater number of households. In that case, the individual savings would be less.

Forty-seven cents per month is not a significant savings today. It hardly seems worth waiting for until 1990.

This is especially true when you consider that the underlying rationale by which pipeline proponents support their economic claims is that continued high inflation will push rail rates to a level above pipeline rates -- because pipelines would be more resistant to inflation.

If one assumes a high rate of inflation between now and 1990, then a saving of 47 cents a month -- insignificant today -- becomes invisible.

It should also be noted that the rate of inflation has been slowing in recent months. Should this trend continue, the pipeline rationale will be rendered totally invalid.

Another feature of today's economy is the difficulty in obtaining long-term capital. Even a conservative estimate of pipeline construction costs indicates that the pipelines now in the planning stages would require some $30 billion in financing.

During 1979, all of American industry combined was able to generate about $120 billion from external capital sources -- either debt or equity.[7] Since slurry pipelines would be new ventures and would not have retained earnings, they would have to seek external financing. A sudden demand for $30 billion in new capital at a time when markets are hard-pressed to meet the needs of existing industry could push interest rates to new highs with attendant adverse effects on the nation's economy.

In such an environment, it is unlikely that pipeline backers will be able to secure long-term financing. It is more reasonable to assume that they would borrow short-term money and hope to re-finance later at more advantageous rates. If so, however, they cannot possibly predict their future rate levels.

Before I leave this point, I would like to take note of the fact that one coal slurry pipeline does operate -- quite successfully -- in the United States. It operates over terrain not well suited to railroading and no traffic other than coal is available over that route. The pipeline has been in operation through years of rampant inflation -- yet the relationship of its rates to rail coal rates in the region have not changed significantly over those years.

Another claim made by pipeline proponents is that pipelines would provide a form of "competitive discipline" to hold railroad rates down. What this apparently means is that railroads, fearing pipeline incursions, would keep rates low to discourage customers from switching.

7/ Federal Reserve Bulletin, September 1980.

This claim falls apart when you note the fact that no pipeline will be built until its almost entire capacity has been committed to long-term contracts.

Once built, the pipeline will monopolize its traffic -- but it cannot attract any additional traffic. There will be no room. Nor will the pipeline's customers be able to switch to other forms of transportation because of their contracts. Thus, traffic remaining to the railroads will not be subject to pipeline competition and traffic moving on the pipeline would not be subject to rail competition.

Pipeline Disbenefits

While there are no justifications in public policy for federal promoters of coal slurry pipelines, there are strong public policy reasons to deny federal eminent domain power to pipeline builders.

For example, pipeline water use is massive. A pipeline moving 55 million tons of coal per year would require more than 13 billion gallons of water -- equal to the entire flow of the Potomac for a week.[8]

Yet, the proposed legislation offers no adquate protection for water rights. States upstream could sell their water to a pipeline promoter to the detriment of farmers, ranchers and other water users in adjacent states -- but the affected state governments would have little recourse. The Office of Technology Assessment makes it clear that slurry pipeline water use threatens agriculture and could

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8/ One ton of water equals 240 gallons, thus 55 million tons equals 13 billion gallons.

foreclose future development of some regions. Recent past water shortages in this nation point up all too well the danger of unnecessarily reducing water tables and diverting the natural flow of rivers and streams.

The 1978 Office of Technology Assessment Study noted that in each of the pipeline origin areas it studied except one, the demand projected for water from 1985 to 2000 exceeded supply. The study stated that "a coal slurry pipeline could use surface water only at the expense of growth in the existing and new uses."[9] The major competing uses would be agriculture and energy-related industry.

Given the importance of agriculture and energy-related industries, any project hindering production in those areas should be carefully scrutinized. Since water supplies vary tremendously from one region to another in terms of quantity and quality, it would be wise and appropriate for states to determine the uses to which their water supplies should be put.

For these reasons, the industry reads the water provisions of the proposed legislation with dismay. The section purporting to protect the right of a state to determine whether a pipeline can use its waters is wholly inadequate. As it now stands, it is doubtful whether the section produces even that limited result.[10] If a challenge to Nebraska law (prohibiting the interstate transportation of ground water) pending in the Supreme Court is successful under

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9/ Office of Technology Assessment, Coal Slurry Pipelines, March 1978, pg. 70.

10/ Op. cit., p. 32.

this bill, a state would have no control over the amount of water a coal slurry pipeline could obtain from a landowner residing in the state.[11] A landowner could sell water underlying his land and the state would be powerless to stop him.

In addition, the bill does not even address the problems faced by states sharing an aquifer. If one state sharing an aquifer with another should choose to let a pipeline draw water from the aquifer, the other state would be powerless under this bill to prevent the loss of its share of the aquifer. Some of the bills submitted in previous sessions of Congress required the ICC to consider water issues and forbade the ICC from granting a certificate to a pipeline operator if a state whose water supply was affected by the proposed project objected. If the Coal Distribution and Utilization Act of 1981 were to pass without these provisions, the ability of states to look after the welfare of their citizens would be seriously impaired.

Finally, it is strange that the Department of Energy and not the Interstate Commerce Commission is given the responsibility for deciding eminent domain questions. The Energy Department has no experience regulating a transportation mode in competition with another. Most previous proposals have properly regarded the Interstate Commerce Commission as the body which should have regulatory authority over coal pipelines.

11/ Sporhase v. Nebraska, 305 N.W. 2d 614 (Neb. 1981), prob. jurisd. noted, 50 U.S.L.W. 3446.

It is also questionable public policy to promote a form of transportation which will serve only large producers of coal. Slurry pipeline promoters acknowledge that the very technology of slurry pipelines requires a continuous feeding of the slurried-coal mixture into the pipeline. This limits pipeline services to mines which offer a minimum of 100 million tons of proven reserves. Thus, slurry pipelines will be built only to serve "large" coal mines. Smaller mines may well close down as a result. At the least, they will certainly be at a competitive disadvantage.

Take, for example, the situation in the coal mining areas served by the Norfolk and Western Railway, a major transporter of Appalachian coal. While the N&W serves 200 mines, only five have reserves of at least 100 million tons. The typical N&W mine has reserves of about 4 million tons. Even if the main pipeline could be branched to serve more than one mine, pipeline economics dictate that the number of branches would have to be very few. Thus, only relatively high-capacity mines would be served by a slurry pipeline.

As railroad revenues decline with the loss of high-volume coal traffic, the smaller remaining rail-using mines would either have to accept considerably higher rail freight rates, or shut down. This is because it is more expensive to serve small mines than large mines, and because as traffic is lost, fixed costs -- which do not change as traffic volume changes -- must be spread over the fewer remaining traffic units. Further, new mines would not open unless they were large enough to attract pipelines.

Because high-volume coal movements represent such an important part of railroad business, railroads which lost such traffic would be forced to try to make up their losses through increased rates on other traffic. A wide range of commodities could be affected -- with the higher delivered costs of these commodities offsetting any consumer savings from coal slurry pipelines.

Federal promotion of coal slurry pipelines is also at cross purposes with public policy designed to alleviate unemployment, which is now running in excess of 9 percent of our workforce.

Coal slurry pipeline advocates continually emphasize that slurry pipelines mean "jobs." They do -- *fewer stable* jobs following a temporary flurry of construction activity.

During the initial construction phases, many temporary jobs will be created for transients. These jobs will require building trades' skills which will continually move along the route of the pipeline. Those temporary workers will receive high wages, but they will add little to the tax bases of localities through which pipelines move, while demanding numerous local services. Further, the transient workers will return most of their wages to their families in other regions of the country. As slurry pipeline interests admit -- in fact, boast -- once the pipelines are in place, their labor requirements will be *minimal*. Thus, boom towns will flourish -- then quickly die.

In contrast, estimates developed by the Office of Technology Assessment imply that construction of the now proposed 13 coal slurry pipelines will eliminate as many as 41,000 railroad operating jobs[12] -- plus an unspecified number of railroad related jobs.

12/ Office of Technology Assessment, *Coal Slurry Pipelines*, March 1978, pgs. 77-78. The OTA report determined railroad employment losses of 16,000 based upon five proposed pipelines. Applying that formula to the 13 now proposed, the result is 41,000 lost railroad jobs.

Also lost would be barge operating and barge-related jobs and coal mine operating and related jobs.

All of these kinds of jobs are now held by highly skilled workers who pay local taxes to support their communities. The same study suggests that stable jobs created by the new pipelines would number no more than 500 per pipeline. Thus, for every new coal slurry pipeline job created, at least six other jobs will be lost.

Unequal Regulation

It is illuminating to compare the common carrier obligations of railroads with those that would be imposed on pipelines. The Staggers Act, enacted in 1980, gives the railroads contract authority, but a shipper can challenge a proposed contract between a railroad and another shipper if the contract "unduly impairs the ability of the contracting carrier or carriers to meet their common carrier obligations to the complainant."[13] For agricultural commodities, the number of cars a carrier can commit to contract service is limited to ensure that contracts will not impair a carrier's ability to meet its common carrier obligation. The Interstate Commerce Commission is authorized to "limit the right of a rail carrier to enter into future contracts ... (if) additional contracts would impair the ability of the rail carrier to fulfill its common carrier obligations,"[14] and the ICC continues to have jurisdiction to review railroad rates.

13/ 49 USC 10713 (d)(2)(A)(i).

14/ 49 USC 10713(f).

In contrast, S. 1844 would not impose any service obligations upon slurry pipelines -- common carrier or contractual. There is not any requirement that a pipeline operator give all suppliers an equal chance to use the pipeline, and the bill imposes no obligation on a pipeline to prorate capacity if original or future demands for the pipeline's services exceeds capacity. It is silent on all of these issues and leaves an area of great uncertainty as to how the Secretary of Energy and the Interstate Commerce Commission are to exercise their dual jurisdictions.

It is evident that this bill protects the interests of the public less than any other in recent memory. Omitted are specific requirements that the granting of the power of eminent domain be conditioned on findings concerning the fitness of the applicant, the effect a pipeline would have on other modes, and the impact a pipeline would have on water supplies. There is no requirement that the eminent domain power be granted for a particular pipeline route or a pipeline of a particular dimension. Evidently, a successful applicant for eminent domain authority would be able to use that power in any way he chooses. No authority is given the Department of Transportation to promulgate standards governing the design, construction, and operation of pipelines. There is no requirement that pipelines be constructed underground where possible.

Finally, let us compare the grant of eminent domain powers. The railroads do not have any federally conferred right. If a common carrier railroad needs eminent domain authority, the carrier obtains it from the states and complies with relevant state laws. Only during the 1860's were federal statutes passed which granted certain railroads the power of eminent domain, and these were necessary because the railroads were crossing federal territories in which state powers were not available. As President Reagan noted, ". . . the extension of federal powers of eminent domain should not be undertaken lightly."[15] Proposed coal slurry legislation, the Reagan Administration has stated, gives to "federal officials a decision that can and should be made by officials at the State level."[16]

But hardship does not stop with transportation jobs lost. There is a "multiplier" effect to consider. As the above primary job unemployment spreads, the disposable incomes of those workers will be lost. As less money is spent on consumer goods in the affected communities, retail sales and other service jobs will also be lost. Local tax revenues will fall, too, causing tax rates to rise if essential public services are to be retained. As local taxes rise, remaining disposable income will shrink, causing further hardships for retail sales and other service workers.

Finally, it should be recognized that long-term pipeline contracts would "lock" utilities into a static technology -- forcing them to forego advantages that might be gained from improvements on transportation technology or in power generation.

15/ Memorandum from President Reagan to the Secretary of the Interior dated November 16, 1981.

16/ Secretary of the Interior's statement before the House Committee on Interior and Insular Affairs, Nov. 17, 1981, p. 3.

Slurry pipeline interests make it clear that they will not begin pipeline construction until the full capacity of their lines is under contract -- under contract for 25 to 30 years or the full economic life of the pipelines.

As a result:

- Utilities will be without incentive to find less expensive forms of transportation;
- Utilities will be without incentive to develop alternatives forms of energy generation.

For 25 to 30 years, utilities will be locked into a single source of energy (pulverized coal) for generating purposes; at a single destination to be served from a single source; and, for 25 to 30 years, utilities will be locked into a single source of transportation for that coal (coal slurry pipelines). All incentives for technological development will be lost.

Opposition Not Limited to Railroads

I would like to note, at this point, that this controversy has for years been portrayed as one of "railroads versus pipelines." Many public statements of pipeline advocates have, for example, cited railroad opposition as the principle reason they need eminent domain powers.

While it is certainly true that some railroads have been less than eager to grant easements across rail lines to companies seeking to drain away their best traffic, it has never been true that railroads have been the main impediment to pipeline development, absent eminent domain.

In this connection, I was glad to see this confirmed by pipeline interests themselves. In a four-page memorandum dated February 23, 1982, the Alliance for Coal and Competitive Transportation rejected a proposal that coal pipelines be given federal eminent domain powers limited to railroad rights-of-way, stating that such legislation "addresses only a small portion of a coal pipeline's current obstacles."

It is clear from this memo that the real objective of pipeline advocates is to obtain land over the objections of the owners at prices far lower than would otherwise be the case. In addition, they seek to avoid the kinds of reasonable conditions that states normally impose to protect their citizens.

Congress, after all, represents the public, not private interests. So it seems to me that the pipeline promoters are saying to the Congress that their private interests should be placed ahead of the interests of a rather large portion of the public -- that they need eminent domain, not to serve the public interest, but to frustrate the public will.

If pipeline services were desperately needed in this nation, that proposition might have some merit -- but we have seen that this is not the case.

Summary:

Before I close, I would like to recap the facts I have attempted to present with regard to this legislation:

- Coal slurry pipelines are not needed to move projected volumes of coal.

- Coal slurry pipelines offer no provable benefits to the public.
- Coal slurry pipelines could cripple an essential existing industry.
- Coal slurry pipelines would consume vast quantities of scarce water.
- Coal slurry pipelines would require huge amounts of private capital from already strained markets, sending interest rates still higher.
- Coal slurry pipelines could foreclose technological improvement for some of the largest utilities and their customers.
- Coal slurry pipelines could trigger increases in the transportation costs of a wide range of commodities, resulting in higher prices to consumers.
- Coal slurry pipelines would cause the loss of thousands of jobs in railroading and other industries.
- Coal slurry pipelines would operate under different -- and more favorable -- transportation rules.
- Coal slurry pipelines are opposed by significant portions of the public at large.

In conclusion, I would like to repeat an observation I have made before in this controversy: If a group of promoters were to show up before the Congress and ask support -- special laws -- for a scheme to build new-single commodity rail lines in regions already well-served by existing railroads, they would have little chance of success. Yet this is exactly what is being proposed -- with added disadvantages not seen in rail lines.

The CHAIRMAN. Thank you very much.

The next witness is Mr. William G. Mahoney.

STATEMENT OF WILLIAM G. MAHONEY, ON BEHALF OF JAMES R. SNYDER, CHAIRMAN, LEGISLATIVE COMMITTEE, RAILWAY LABOR EXECUTIVES ASSOCIATION, WASHINGTON, D.C., ACCOMPANIED BY DONALD S. BEATTIE, DIRECTOR, GOVERNMENTAL AFFAIRS

Mr. MAHONEY. Thank you, Mr. Chairman. I'm here as a designee of Mr. James Snyder who is legislative director, or rather the legislative chairman for the Railway Labor Executives Association. He expresses his regrets that he couldn't be here.

I'm accompanied by Mr. Donald S. Beattie, the director of governmental affairs for the Railway Labor Association and I will attempt to be very brief.

Much has been said here today and I don't intend to repeat any of it if possible.

The testimony and documentary evidence which have been presented to the Congress over the past 4 years demonstrates that the coal slurry pipelines are not needed. No need has been found by Congress Office of Technology Assessment nor by the Department of Transportation, even at the time when the Department of Transportation was part of the administration that supported coal slurry pipelines.

The pipelines are environmentally unsound. They deplete already overburdened water resources. They represent a specialized, inflexible use of energy, and are less energy efficient than unit coal trains.

In a recent publication of a staff working paper entitled "Energy Use and Freight Transportation by the Congressional Budget Office" it was pointed out that a coal slurry pipeline utilizes 1,270 Btu's per ton mile of cargo, while a unit coal train utilizes only 890. The construction would contradict established congressional policy of revitalizing the Nation's railroads. They would provide private carriers the combined advantages provided private and common carriers without the attendant disadvantages of either. And it would adversely affect railroad employees.

At the present time, at least as of March 1982, the work force is some 461,000 actively employed railroad employees; some 76,397 were receiving unemployment benefits. Many, of course, have exhausted unemployment benefits and are still out of work in the railroad industry.

In addition, the OTA report of 1978, and this is of importance, concluded that from 1985 to the year 2000 some 12,000 to 18,000 railroad jobs would be lost while some 12,800 individual employees would be unemployed.

The OTA report focuses only on the effects of western pipelines. The OTA report does not deal with the more recent evidence of the pipeline companies to build eastern pipelines whereby the effects on unemployment would be much greater as just pointed out by Mr. Briggs, with 13 pipelines now under consideration. Some 41,000 railroad jobs would be lost.

The testimony and evidence put before this committee have also demonstrated that the railroads can meet the increased demand for coal transportation.

Thank you very much.

[The prepared statement of Mr. Snyder follows:]

BEFORE THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
OF THE
UNITED STATES HOUSE OF SENATE
ON S. 1844
MAY 10, 1982

STATEMENT OF JAMES R. SNYDER, CHAIRMAN, LEGISLATIVE COMMITTEE, RAILWAY LABOR EXECUTIVES' ASSOCIATION

My name is James R. Snyder. I am Chairman of the Legislative Committee of the Railway Labor Executives' Association and the National Legislative Director of the United Transportation Union. I am accompanied by William G. Mahoney, counsel to the Railway Labor Executives' Association. I present this statement on behalf of the Railway Labor Executives' Association in opposition to the enactment of S. 1844.

The membership of the Railway Labor Executives' Association consists of the chief executive officers of twenty standard national and international railway labor organizations. They are:

American Railway & Airway Supervisors Association, Division of BRAC
American Train Dispatchers' Association
Brotherhood of Locomotive Engineers
Brotherhood of Maintenance of Way Employes
Brotherhood of Railroad Signalmen
Brotherhood Railway Carmen of the United States and Canada
Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employes
Hotel & Restaurant Employees & Bartenders' International Union
International Association of Machinists and Aerospace Workers
International Brotherhood of Boilermakers and Blacksmiths

International Brotherhood of Electrical Workers
International Brotherhood of Firemen & Oilers
International Longshoremen's Association
International Organization of Masters, Mates & Pilots
National Marine Engineers' Beneficial Association
Railroad Yardmasters of America
Sheet Metal Workers' International Association
Seafarers International Union of North America
Transport Workers Union of America
United Transportation Union

I appear before you today to express the opposition of the membership of RLEA to legislation which seeks to extend the power of federal eminent domain authority to privately owned coal slurry pipeline companies.

The private carriers thus advantaged by this grant of federal eminent domain authority would direct their efforts at capturing the most profitable long-haul, high-volume coal traffic; traffic traditionally transported by this nation's railroads.

It is our conviction that the passage of such legislation in these times would not be in the public interest.

The RLEA has testified many times before on the subject of coal slurry pipeline legislation. S. 1844 is very similar to those earlier legislative proposals which failed of enactment. The record already made on this subject is just about the most complete record available on any piece of legislation ever presented to the Congress. Among the most significant pieces of evidence in this record is the report of the Office of Technology Assessment on coal slurry pipelines, the OTA Report.

The OTA Report notes that the pressures for the construction of coal slurry pipelines began in 1962 when President Kennedy suggested "coal slurry pipelines might represent a way of transporting coal more economically thereby improving the depressed condition of the coal mining industry. . . ." We need no longer search for a means of reviving the coal mining industry. That was accomplished by our finally becoming aware of the seriousness of our dwindling petroleum reserves and our increasing dependence upon foreign oil.

Absent the necessity of revitalizing the coal mining industry to what do we look to determine whether a need exists for the development of coal slurry pipelines?

The Department of Transportation has testified before the Congress that the railroad industry could handle the present and future coal transportation needs of this nation. It seems clear to us that the OTA Report found no need for slurry pipelines. The OTA Report did find that under certain limited circumstances pipeline economies would result in savings beneficial to the coal mine operators, the electric utilities, and the pipeline operators, but the extent to which those benefits would reach the consumer is unknown. Also, pipelines would divert traffic from the rails even where the incremental rail costs would be lower; pipelines may impede future railroad expansion; water in the state of Wyoming could be reduced by 3% at a time when agricultural uses already had depleted flows to a point where water quality had seriously declined; and, shipping costs of electric utilities might be lowered while those of non-coal rail users could be increased. These are but a few of the conclusions of the OTA Report which strongly indicate that, on balance, legislation promoting construction of coal slurry pipelines would not be in the public interest.

Of most direct importance to the RLEA are those conclusions of the Report which indicate that from 1985 to the year 2000 some 12,000 to 18,000 railroad jobs would be lost, while some 12,800 individual employees would be unemployed. The OTA Report focuses only on the effects of western pipelines. With the more recently evidenced intent of pipeline companies to build eastern pipelines, the effects to rail employment would be much greater. While the number of jobs in the construction industry would be increased, these jobs would be temporary in nature as compared with railroad jobs and would, of course, cease with completion of the construction of the pipeline. Such jobs would contribute but temporarily to the region in which they were located, whereas those employed by the railroads normally settle permanently in a particular region thereby contributing permanently to the development of the community in which they are found.

Proponents of enactment of coal slurry pipeline legislation contend that the construction of coal slurry pipelines will provide constructive competition for the railroads and the rates they charge for coal transport. But there is no basis in fact for that view: first of all, not all mines and utility companies will have access to pipelines; therefore, there can be no competition between the two modes of transport; and second, the pipeline company would be very selective in its choice of customers and would have a virtual monopoly of coal traffic with any utility with which it contracts to serve -- the railroad simply would be unable to compete for traffic to that utility. The immediate effect of the pipelines' monopoly hold on the most select coal transport would be severely adverse to the ability of the railroads to serve their non-coal as well as their coal shippers. S. 1844 would worsen the adverse impact that the potential monopoly of pipeline carriers would have by removing the FTC's antitrust jurisdiction which was contained in some earlier coal slurry proposals. The ultimate result will be weaker railroads requiring federal funds to survive.

Although S. 1844 is substantially similar to the more recently rejected coal slurry pipeline proposals, it contains substantive and procedural deficiencies that make it even more ojectionable than the earlier proposals. S. 1844 would be more harmful to a cohesive national transportation policy. It would remove the agency most knowledgable on the subject of interstate transportation, the Interstate Commerce Commission, from authority or even imput on this vital transportation question and place it in the hands of a non-expert agency - the Department of Energy. The transport of coal by rail, barge, or pipeline is still primarily and basically a matter of transportation not a matter of energy.

S. 1844 does not require the Secretary of Energy to weigh any of the specific cost, anticompetitive, and environmental considerations required by earlier bills. Rather, S. 1844 permits the Secretary to effectively grant to a private pipeline company the authority of federal eminent domain merely if such a pipeline will "be in the national interest". This bill would not even require such pipeline companies to be "common carriers" as did earlier proposals.

The transportation of coal by rail or pipeline is transportation nonetheless and should be treated as such. Those agencies with the responsibility for implementing our nation's transportation policy must have authoritative responsibility in the transportation of coal as well as other commodities. They are the agencies -- and the only agencies -- with the expertise to determine the effects of the transport of coal by pipeline upon other modes of transportation and upon our transportation network generally. By placing different modes of transport under different sets of regulations and different government agencies we prevent the establishment of a unified national transportation policy.

The testimony and documentary evidence which have been presented to the Congress over the past four years demonstrate that coal slurry pipelines are not needed; they are environmentally unsound; they deplete already overburdened water resources; they represent a specialized, inflexible use of energy; their construction would contradict established Congressional policy of revitalizing the nation's railroads; and, would provide private carriers the combined advantages provided private and common carriers without the attendant disadvantages of either. That testimony and evidence also demonstrate that railroads can meet the increase in demand for coal transportation at rates probably lower, but at least comparable to pipeline rates; and, that railroads are at least as energy efficient, if not more energy efficient, than pipelines.

However, if pipelines are afforded federal eminent domain authority, railroads will be placed at a disadvantage that seriously will handicap their ability to compete. The only way to avoid the destructive competition which would result from private coal slurry pipeline companies' use of eminent domain authority is to recognize now that pipelines do not offer needed or improved coal transportation, while at the same time, they would undermine the financial stability and service availability of the nation's railroads. We respectfully submit that that is too high a price to pay for an alternative system of transportation that can produce no measurable improvement over what can be provided by the existing railroad system.

In closing, I would like to refer this Committee to the detailed report issued in 1978 by the Subcommittee on Transportation and Commerce of the Committee on Interstate and Foreign Commerce following extensive hearings on H.R. 1609, a bill virtually identical to S. 1844 in its basic purpose and effect. That report concluded: "Federal promotion of coal slurry pipelines in the manner contemplated in H.R. 1609 would undermine the national transportation policy and, with it, the system of common carriage."

Thank you for this opportunity to present to you the views of the RLEA on this important subject.

The CHAIRMAN. Thank you very much.

The next witness is Mr. Philip S. Brown.

STATEMENT OF PHILIP S. BROWN, VICE PRESIDENT, CORPORATE AFFAIRS, KANSAS CITY SOUTHERN RAILWAY CO., KANSAS CITY, MO. ACCOMPANIED BY JON T. BROWN AND THOMAS E. DEWEY, JR.

Mr. BROWN. Thank you, Mr. Chairman.

I am Philip S. Brown, vice president for corporate affairs for the Kansas City Southern Railway Co. I am accompanied by Washington counsel, Mr. Jon T. Brown of Brown & Roady, whose firm has primary responsibility for advising my company on land, water and commerce law related to the development of coal slurry pipelines. And I'm also accompanied by our New York financial consultant, Mr. Thomas E. Dewey, Jr. These gentlemen are sitting behind me.

At my request, Mr. Dewey has prepared a written statement discussing the difficulties of financing large scale projects like coal slurry pipelines. It points out the impact that these financial arrangements might be expected to have upon the credit of participating utilities, and the rate that passes through to their electrical consumers.

I would ask that both my written statement and Mr. Dewey's written statement together with some supporting materials be accepted for insertion in the hearing record.

The CHAIRMAN. Without objection, so ordered.

Mr. BROWN. The Kansas City Southern provides regional rail service over a 1,500-mile system, beginning at Kansas City on the north and connecting the Midwest to several major Gulf ports in Louisiana and Texas. We currently handle unit coal trains which originate in Wyoming, delivering that coal to a number of destinations along the system.

Market studies indicate good potential for growth in those coal movements, both attributable to economic development and to conversion from natural gas to coal. That prospect led us to make a nearly $100 million investment over the last decade and improvements to our rail system related to coal traffic capacity.

The proposed ETSI pipeline would serve those same markets so we've been forced to examine carefully what slurry transportation means to our future. That future depends at least as much on agriculture as it does on coal. For that reason the impact of this legislation on farmland and natural resources is vitally important to the railroad.

It caused us to look carefully at two aspects of the legislation. Federal eminent domain across private lands, and the effect of this legislation on water.

Our greatest concern about the Federal eminent domain power in S. 1844 is the extent to which the special privilege can be used to preempt State water rights and State and local laws. Congress is able to grant Federal eminent domain rights to these pipeline companies pursuant to its authority under the Interstate Commerce Clause of the Constitution.

From court interpretation of this constitutional power has developed a presumption familiar to this committee that Federal law preempts State laws where conflicts occur in cases of this type. It is inevitable that the use of this power by pipeline companies will result in conflicts between various State laws and the Federal eminent domain law enacted by Congress.

My full testimony discusses at some length the cases which provide a precedent against which these conflicts will be judged. Our analysis resulted in two basic conclusions. That the bill as drafted omits several important safeguards against these kinds of preemptions and second, that even with the addition of extensive safeguards against preemption congressional intent will not be sufficient to protect State and local laws in litigation.

One specific problem occurs in section 4(c) of S. 1844 which provides that the use of eminent domain should "conform as nearly as may be practicable" with the practices and procedures in the State where the property is situated. That language cannot be stretched to suggest that State and local laws must be recognized. Various court decisions suggest in fact that it offers very little protection at all.

The kinds of loss which would be susceptible to preemption are sweetened. These are land management, water allocation, end-use, pollution state, safety laws, and regulations covering such areas as design, installation, inspection, emergency plans, testing, construction, operation and maintenance of projects.

Looking at the local laws under which we operate in Louisiana, the following list consists of just a few of that State's statutes which would be susceptible to preemption. Louisiana Environmental Affairs Act; Louisiana Solid Water Management and Resource Recovery Law; Louisiana Hazardous Waste Control Law; Louisiana Resources Recovery and Development Act; Louisiana Water Control Law; Louisiana Natural and Scenic River System; Louisiana Threatened and Endangered Species Conservation Law.

We also operate in Arkansas and can provide Senator Bumpers with a partial listing of his State and local laws which would be susceptible to preemption.

It is ironic that one set of State statutes which will become the most likely candidate for preemption are the State eminent domain laws provided to the coal slurry industry by over half the country's State legislatures. In most cases those legislatures condition those powers of eminent domain with provisions that reflect local situations and problems. These conditions will be undone by Federal action.

There is another fundamental problem with S. 1844, the bill's attempt to limit Federal authority over State water regulation may achieve the opposite result. The language in S. 1844 assumes for the Federal Government the power to delineate the extent of State control over water. Any Federal powers not specifically limited by the language of the bill could therefore be construed to remain available for Federal exercise. By appearing to create lucrative restrictions the legislation might actually be establishing precedent for Federal involvement in numerous State water issues. The legislation also fails to make explicit whether it will apply to and protect State water statutes enacted in the future. Nor is it clear which State water or land statutes are to be recognized in those instances where the conflicts arise between States and are inconsistent with the Federal intent.

And finally, I would briefly mention the *Sporhase* v. *Nebraska* case currently before the Supreme Court. This puts in jeopardy the laws of 14 western States which limit the export of groundwater outside of State boundaries. It is discussed at length in my testimony and supporting documents. Its outcome could render moot whatever steps might be taken by this committee to protect State water laws. KCS does not think S. 1844 should be enacted under any circumstances, but particularly with the *Sporhase* decision.

There is reason to put aside the coal slurry debate until this Nation has a better grip on the management of its water resources.

Thank you for allowing me to appear before this committee.

[The prepared statements of Mr. Brown and Mr. Dewey follow:]

The Kansas City Southern Railway Company
Louisiana & Arkansas Railway Company
301 West 11th Street, Kansas City, Missouri 64105

PHILLIP S. BROWN
Vice President

STATEMENT BEFORE THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES ON S. 1844, TO FACILITATE THE NATIONAL DISTRIBUTION AND UTILIZATION OF COAL, MAY 10, 1982, WASHINGTON, D.C.

Mr. Chairman, I am Phillip S. Brown, vice president for corporate affairs of the Kansas City Southern Railway Company. I'm accompanied by Washington counsel, Mr. Jon T. Brown of Brown & Roady; and by our New York financial consultant, Mr. Thomas E. Dewey, Jr.

The Kansas City Southern is a small, 1,500-mile rail system serving Kansas City on the north and the ports of New Orleans, Baton Rouge, and Lake Charles, in Louisiana, along with the Texas markets of Beaumont, Port Arthur, and Dallas on the south. The railroad terminates unit coal shipments at Kansas City and Amsterdam, Missouri; Flint Creek, Arkansas; and Welsh, Texas. These unit trains are originated by other carriers in the far West and received by KCS at Kansas City.

Because of our geographical location, the proposed pipeline of Energy Transportation Systems, Inc., (ETSI) is particularly threatening to our future market position. That concern has led us to look carefully at the legislative process which may award special advantage to the coal slurry industry and to pursue specific problems related to the ETSI project through administrative and judicial channels. Our experience with ETSI will hopefully be useful to this Committee as it examines newer project proposals at less advanced stages of development.

Rather than review economic issues in detail at this stage, I want to discuss two more general issues that have proven to be particularly troublesome to the Congress: eminent domain and the protection of States' water rights.

The greatest concern about the federal eminent domain power bestowed by S. 1844 is the extent to which this power would preempt states' rights and states' laws. Eminent domain is traditionally an area of state--not federal--control. In reversing this historic pattern, Congress would set a dangerous precedent, allowing private corporations to preempt an alarming variety of state laws.

Congress is able to grant federal eminent domain rights to these pipeline companies pursuant to its authority under the Interstate Commerce Clause of the Constitution (Article 1, Section 8). It is inevitable that the use of this power by pipeline companies will result then in inconsistencies between various State laws and the Federal eminent domain law enacted by Congress. Such disputes will ultimately end in legal challenge. There is a presumption developed by the federal courts that the Federal law totally preempts State law in these circumstances. Gibbons v. Ogden, 9 Wheat 189 (1824).

Courts have held that this presumption of federal preemption can be rebutted where statutory language makes clear that

Congress did not intend to preempt the field in question. However, neither the partial legislative history contained in Committee Reports nor the more general legislative history reflected in floor debate provides the necessary rebuttal to the assumption of federal preemption.

For example, S. 1844 provides in Section 4(c) that "The practice and procedure in any action or proceeding to acquire rights-of-way under this section in a district court of the United States shall conform as nearly as may be practicable with the practice and procedure in a similar action or proceeding in the courts of the State where the property is situated."

The phrase "...as nearly as may be practicable..." is not clear legal argument for rebuttal. It simply suggests that State law, and perhaps local law, will be observed it if does not happen to be obstructive to coal pipeline construction and operations. The language of S. 1844 cannot be stretched to suggest that State and local laws must be recognized.

The legal experience in this situation is not encouraging. The Supreme Court, in National League of Cities v. Usery, 426 U.S. 833 (1976), developed some restrictions upon federal preemption of state laws and regulations. In Usery, the Court invalidated an attempt by Congress to prescribe maximum hour and minimum wage limitations for public state employees. The Court found that in circumstances where a state or local government entity performs traditional governmental functions integral to the operation of that governmental entity, federal Commerce Clause regulation may be limited.

In addition to the State role as employer of public workers, the Court enumerated other services that were integral to the governmental function, including "fire prevention, police protection, sanitation, public health, parks, and recreation." Id. at 851.

Since 1976, federal courts have further refined the scope of "integral government functions" that leave state action immune from federal preemption. See, generally, Hughes Air Corporation vs. Public Utilities Commission, 644 F.2d 1334 n.5 (9th Cir. 1981).

In Friends of the Earth vs. Carey, 522 F.2d 25 - 2d Cir. (1977), the Court held that federal air pollution requirements did not impinge on states' rights within the limited exception of Usery. The Court made clear that the broad interstate nature of efforts against air pollution precluded the problem from falling within a state's traditional government function. While the particular facts differ from those surrounding S. 1844, the rationale is equally applicable: like air pollution, energy transportation has interstate implications. The Friends of the Earth approach, therefore, as applied to federal coal slurry eminent domain legislation, suggests that a broad range of State laws and activities will not be protected from federal infringement within the Usery exception.

The legislatures of at least half the States have already given specific eminent domain rights to coal slurry pipeline companies--rights which ironically will be susceptible to preemption if Congress enacts S. 1844.

In Cooley vs. Board of Wardens, 53 U.S. 299 (1851), the Court established a general rule that where subjects of commerce "imperatively demand a single uniform rule," the power of Congress is exclusive. In those fields where national uniformity is not essential, either the state or federal government may act. While it is highly questionable whether coal slurry pipelines require uniform national treatment, the fact that Congress in S. 1844 would establish a system of federal eminent domain is an indication of its intention to preempt the field. State statutes that cover the same subject matter or are in direct conflict with Congress' exercise of authority are therefore necessarily superseded. In City of Burbank v. Lockheed Air Terminal, Inc., 411 U.S. 624 (1973), the city's attempt to regulate the air traffic hours within its borders was invalidated due to existing federal regulatory scheme.

Most of the legislatures which have granted state eminent domain for coal slurry pipelines have included restrictions upon both the manner in which such power can be invoked by these private companies and upon the conditions under which the power can be exercised.

In Florida, for example, the legislature has provided that any corporation operating a coal slurry pipeline, that would "exercise or intend to exercise" the power of eminent domain pursuant to Florida law, shall be subject to strict regulation by the Florida Public Service Commission (PSC).

Fla. Stat. Ann. §350.80. In addition to traditional prohibitions against discriminatory rates, the Florida law provides that the Florida PSC shall have access to appropriate financial records of regulated coal pipeline companies to prevent undue profits by any utility companies which participate in the pipeline company itself. S. 1844 clearly runs the risk of eliminating this salutary attempt by Florida to regulate the financial impacts of coal pipelines within the State.

The Oklahoma Legislature enacted a variety of restrictions on the exercise of State eminent domain by coal slurry pipelines (Okla. Stat. Ann. Title 27, §§7.1-7.11). Among these restrictions, the state has reserved the power to regulate rates and charges of coal pipeline companies, and the power to require the coal pipeline companies to bear the expense of relocations occasioned by their pipelines. These and other statutory protections against potential excesses by coal pipelines in Oklahoma could be vitiated by S. 1844.

It is equally disturbing that a broad range of traditional land management and public welfare statutes are also susceptible to preemption under S. 1844. This preemption can occur wherever state regulation conflicts with the federal policy objectives of S. 1844. Such conflict is determined by the nature and extent of the burden imposed by the regulation, and the relative weights of the state and national interests involved. For example, in one case, the Court even held the cost of compliance with state regulations to be a relevant factor in determining that the state had burdened interstate commerce. Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959).

A general summary of the categories of state statutes susceptible to preemption includes any land management, water use and control, pollution, or resources management laws which create additional procedural roadblocks to the development of coal slurry pipelines, as well as state safety laws and regulations covering such areas as design, installation, inspection, emergency plans, testing, construction, operation and maintenance.

States have traditionally had broad control of land use and resource management within their boundaries. Using Louisiana and Arkansas as examples, since they are terminating points for the ETSI pipeline (though ETSI claims it will not need or use federal eminent domain powers to acquire its right-of-way), S. 1844 could potentially preempt the following types of statutes:

Louisiana

- Louisiana Environmental Affairs Act (La. Rev. Stat., Title 30, Cnapter II, §1051 et seq., as amended) (West).
- Louisiana Solid Waste Management and Resource Recovery Law (La. Rev. Stat., Title 30, Chapter II, §1121 et seq., as amended) (West).
- Louisiana Hazardous Waste Control Law (La. Rev. Stat., Title 30, Chapter II, §1131 et seq., as amended) (West).
- Louisiana Resource Recovery and Development Act (La. Rev. Stat., Title 30, Chapter II, §1150.1 et seq., as amended) (West).
- Louisiana Water Control Law (La. Rev. Stat., Title 30, Chapter II, §1091 et seq.) (West).

- Louisiana Natural and Scenic River System (La. Rev. Stat., Title 56, Chapter 8, §1841 *et seq.*) (West).
- Louisiana's Threatened and Endangered Species Conservation Laws (La. Rev. Stat., Title 56, Chapter 9, §1901 *et seq.*) (West).

Arkansas

- Arkansas' Environmental Quality Act (Ark. Stat. Ann. §9-1401 *et seq.*).
- Arkansas' Natural and Scenic Rivers System Act (Ark. Stat. Ann. §9-1201 *et seq.*).
- Arkansas' Conservation Districts Law (Ark. Stat. Ann. §§9-901 - 9-907, 9-909 - 9-913, 9-918 - 9-938).
- Water Conservation Commission laws (Ark. Stat. Ann. §§21-1301 *et seq.*).
- Arkansas' State Historical Preservation Program (Ark. Stat. Ann. §8-904 *et seq.*).
- Arkansas Water and Air Pollution Control Act (Ark. Stat. Ann. §82-1901 *et seq.*).
- Arkansas Hazardous Waste Management Act (Ark. Stat. Ann. §82-4201 *et seq.*).
- Arkansas Solid Waste Management Act (Ark. Stat. Ann. §82-2701 *et seq.*).

These listings of specific Louisiana and Arkansas statutes are by no means complete, particularly with respect to those additional laws governing planning, zoning, commercial and industrial land use, project safety, permitting, and licensing. These categories of State and local law are similarly subject to preemption under S. 1844.

In summary, a federal eminent domain law for coal slurry pipelines would cut broadly into the ability of states to regulate their own land use, resource development, construction management and safety problems.

Turning to the attempt to protect state water rights contained in S. 1844, I would like to express our conviction that the proposed protection of States rights is insufficient. The bill aims to sever its broad grant of eminent domain powers to pipelines from the underlying question of the availability of water necessary for such pipelines by specifying that state law will continue to control the issue of water availability. Obviously, it is difficult, within the context of the broad federal exercise of a constitutionally-based Commerce power under S. 1844, which would usurp state statutes and authority in a series of areas, to effectively delineate an area where that federal power will not apply. For a number of reasons, it is very questionable whether the language in Section 6 would successfully protect state water law from federal encroachment.

Over the past century, federal legislation passed pursuant to the Commerce Clause has cut deeper and deeper into areas once regulated by the states (see earlier discussion of preemption of State laws). Since water is a critical element for the operation of a coal slurry pipeline, which, under S. 1844, would be constructed pursuant to a grant of federal commerce power, it is probable that onerous, but important, state water law requirements rights would be challenged by coal slurry proponents as inconsistent with the essential thrust of the federal legislation. Even where Congress has attempted to protect a particular area of state regulation from federal preemption, courts will frequently defer to the doctrine of federal preemption and vitiate the attempt.

In First Iowa Hydro-Electric Cooperative v. Federal Power Commission, 328 U.S. 152 (1946), the Supreme Court failed to comply with a Congressional directive recognizing the application of state water law. The Court in First Iowa indicated that while the applicant cooperative could be required to submit evidence of compliance with state laws, which laws the Federal Power Commission considered appropriate to effectuate the purposes of the federal license, evidence of compliance with all state licensing requirements as determined and required by the state was not required because compliance with state requirements "that are in conflict with federal requirements might well block the Federal license."

The Court took notice of a section of the Federal Power Act which states:

> Nothing contained in this chapter shall be construed as affecting or intending to affect or in any way to interfere with the laws of the respective states relating to the control, appropriation, use or distribution of water used in irrigation or for municipal or other uses, or any vested right acquired therein.

The Court acknowledged that this section "expressly 'saves' certain State laws relating to property rights as to the use of water, so that these are not superseded by the terms of the Federal Power Act." But the Court went on to distinguish away this savings clause by finding that other provisions of the Federal Power Act requiring that applicants for a federal license for a federal project submit "evidence that the applicant has complied with the requirements of the laws of the State... within which the proposed project is to be located with respect to bed and banks and to the appropriation, diversion, and use of water for power purposes" were,

> thoroughly consistent with the integration rather than the duplication of Federal and State jurisdictions under the Federal Power Act. It strengthens the argument that in those fields where rights are not saved to the States, Congress is willing to let the supercedure of State laws by Federal legislation take its natural course.

In other words, the Supreme Court narrowly construed the savings provision covering state water rights in the Federal Power Act, reading it against the broad federal powers elsewhere in the Act, and thereby avoided recognition of a state water requirement.

The water law language in Section 6 of S. 1844, of course, is very similar to the language in the Federal Power Act cited above. First Iowa is significant since in that case the Supreme Court construed water law language similar to that in S. 1844 and found that it did not prevent preemption of state water laws.

Clearly, the language in Section 6 of S. 1844 represents a good faith attempt to protect state water laws. Nonetheless, while Section 6 of S. 1844 attempts to make a broad definition of the types of state water laws that will be protected from federal preemption, there can be no assurance about how the federal courts will define such terms as water "use," and the types of statutes that will fall within such terms. For example, it is by no means clear whether courts will consider state statutes covering water discharges or water quality requirements to fall within the terms used in S. 1844 describing state water appropriation and use laws. The Federal Commerce Clause power is historically so broad that it is questionable whether the goal of preserving state rights to control water use can be compatible with any legislation granting eminent domain authority to coal slurry pipelines. The only certain way to guarantee the result that all parties agree on state control over water regulation is for the federal government to leave the decision on grants of eminent domain to slurry pipelines to state, rather than federal, legislation.

Of particular concern, regarding the extent of Federal Commerce Clause power, is the question whether a state which has granted water rights in connection with a coal slurry pipeline using federally-approved rights-of-way, may lose its ability to subsequently alter, restrict, or terminate the pipeline's water allocation in favor of other, more preferential uses. Once the flow of interstate commerce has commenced under federal authority, a state has only a limited Constitutional ability to limit that flow. Regardless of legislative protections built into S.1844 for state water laws, such a subsequent state action could be determined to be an unreasonable burden on interstate commerce, regardless of the legitimacy of the interest which a state is seeking to protect by limiting the water available to a slurry pipeline. See, e.g., Pike v. Bruce Church, Inc., 297 U.S. 137, 142 (1978) ("the extent of the burden [on interstate commerce] that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted with lesser impacts on interstate activities"). Or a state's authority may be preempted where a federal court determines a legitimate state interest is not at stake. See, e.g., Great Atlantic and Pacific Tea, Inc. v. Cottrell, 424 U.S. 366 (1976). There can be no assurance that any language in S.1844 would be adequate to prevent a court from finding, as occurred in First Iowa, that a state water permit or authorization once granted, could not then be restricted or terminated without unduly burdening interstate commerce.

There is another fundamental problem with S.1844: the bill's attempt to limit federal authority over state water regulation may achieve the opposite result. The language in S.1844 assumes for the federal government the power to delineate the extent of state control over water. Any federal powers noc specifically limited by the language of the bill could be construed to remain available for federal exercise, with resulting detriment to a state's regulatory authority. By creating limited restrictions, the legislation may actually be establishing a precedent for federal involvement in numerous state water issues.

In summary, the history of broad interpretation of the Commerce Clause makes suspect even the most careful Congressional attempts to protect residual state regulatory authority.

Another fundamental problem with the water language in S.1844 is that it fails to make explicit whether it will apply to and protect state water statutes enacted in the future. Clearly, many states that may eventually be reached by coal slurry pipelines are not now prepared for this eventuality. They may want to pass legislation when finally confronted with this possibility which places limits on slurry pipeline water access and use. Or, states with water laws directed at coal slurry pipelines may want to modify them based on actual operating experiences, addressing such problems, for instance, as pipeline spills and discharges.

Since S.1844 fails to reach the question of whether prospective state water laws are protected, it may jeopardize the ability of states to effectuate water law protection in the future. Secondly, if a state subsequently acts to limit a water grant to a pipeline, there may be a 5th Amendment constitutional "taking" problem, leaving the state liable for damages from the pipeline company. This whole area of future state action is one the committee needs to carefully review.

One of the most serious omissions in S.1844 is the absence of language dealing with situations in which states share water sources. Inevitably, the grant of federal eminent domain powers will encourage substantial water sales and diversions to slurry pipelines from existing aquifers and surface streams. As demonstrated by the recent $1.4 billion sale of water by South Dakota to the ETSI coal slurry pipeline, there will be strong temptations for states to make major water sales at the expense of their neighbors' shared water rights. Since virtually every state is downstream from some other state, this is likely to be a growing problem. Second, particularly in the west, most of the significant underground water formations are shared with other states. Because groundwater is replenished so slowly, a significant diversion from one state may have a major impact on the availability of groundwater in neighboring states sharing the water formation.

S.1844 fails to take cognizance of this emerging problem over the allocation of shared water sources. Most particularly, the bill fails to delineate that all state laws are applicable in a "shared source" situation, or, indeed, whether any individual state's laws can be allowed to be preeminent under such circumstances.

Because of its silence on these issues, S.1844 will encourage unilateral action by states to the serious detriment of their neighbors. The problem is exacerbated by the fact that coal slurry pipelines will tend to set off a water pricing war, particularly in the west and midwest.

At a minimum, S.1844 should contain language making clear that slurry pipelines must secure water rights from the states sharing the water source to be used by the pipeline, and that a grant of federal eminent domain to a pipeline can in no way be construed as altering the legal rights and recourse of states sharing the source with the state where the pipeline would originate. The Committee should also carefully review the related problem of whether a preeminent water right is created in the state receiving the coal slurry water, to the detriment of the originating states.

In sum, the failure of S.1844 to speak to the issue of shared water sources will promote unilateral actions by states, jeopardize the water rights of their neighbors, and in effect, provide a federal sanction for such actions. This obviously requires correction.

Unfortunately, the outcome of a case now pending before the U.S. Supreme Court threatens to make this Committee's debate on State water rights moot.

The U.S. Supreme Court has taken an appeal of the case of Sporhase v. Nebraska, Case No. 81-613, with arguments held in March and a decision expected within the next few months. The case presents a challenge, under the Commerce Clause of the U.S. Constitution, to a Nebraska statute limiting the export of groundwater outside state boundaries. A total of fourteen states (thirteen in the west or midwest) have similar statutes regulating the diversion of water outside state boundaries. The plaintiffs in the case argue that Nebraska's statute, which protects and conserves the state's scarce water supplies from diversion, is an unconstitutional burden on the flow of interstate commerce.

The case, therefore, presents a fundamental challenge to the states' traditional powers to regulate water use within their borders. If the Nebraska statute is found to be unconstitutional, and water is declared to be an article of commerce, the ability of states to regulate water availability will be sharply curtailed. Water potentially would become solely a market commodity, with availability subject to price and not subject to state water conservation provisions. The Sporhase case is one of the most important water cases ever heard by the Supreme Court, and, if the Supreme Court rules against Nebraska, it presents a basic threat to state control of water.

Section 6 of S.1844, as noted, represents an attempt to protect state water laws from interference through a federal exercise of eminent domain powers for slurry pipelines. Perhaps the most critical state statutes which S.1844 aims to protect are the types of laws challenged in Sporhase: state water export laws limiting and controlling diversions outside state boundaries. However, the protections contained in S.1844 would be rendered largely meaningless if the Supreme Court in the Sporhase case sharply curtails, on Constitutional grounds, the extent of state control over water.

In light of the very serious threat to state water control represented by the pending Sporhase case, at a minimum Congress should defer action on S.1844 until the Supreme Court has ruled in the case. In the event the ruling is unfavorable to the Nebraska statute, the whole thrust of coal slurry pipeline legislation may have to be altered.

Turning from the legislative and Constitutional issues facing this Committee, I'd like to outline to you our experiences in dealing with a specific pipeline project--the Energy Transportation Systems, Inc., (ETSI) project which proposes to deliver coal from the Powder River Basin, Wyoming to the KCS market areas in Oklahoma, Louisiana, and Arkansas.

ETSI has in hand its final environmental impact statement, necessary to acquisition of rights-of-way across federal lands. That EIS has been examined by KCS counsel and various consultants with expertise in pipeline construction, location, and operations. KCS carefully monitored the Bureau of Land Management in its preparation of both the draft and final EIS, so that we have gained more than passing expertise in the kinds and quality of data upon which the final work product is based.

In our comments on the Final EIS, KCS found four serious failures--errors in judgment and analysis which correspond very closely to the findings required in Section f (b) of S. 1844:

- The EIS fails to explore the alternatives to the pipeline in a reasonable fashion and to examine adequately the impacts on railroads. Coal demand was greatly overestimated by both the coal industry and by U.S. government agencies. Those erroneous projections of the past decade were unfortunately used by BLM, despite our attempts to correct their data base for the EIS. Because coal demand is increasing only gradually--far below the still optimistic projections of the coal slurry industry--the economic effect of slurry pipeline construction on railroads could now be devastating.

Railroad planners also relied for some years on these optimistic coal demand projections. As a result, rail coal capacity today is more than ample. Based on those optimistic projections, KCS, for example, invested $93 million in track and equipment between 1975 and 1980 principally to handle coal traffic. As a result, our system is now able to accommodate growth in coal traffic exceeding 11.25 million tons annually. Yet, if ETSI enters our market, we anticipate that only 3.5 million tons of coal will be available annually to KCS and the half-dozen or so railroads that are our competitors in the area.

- The EIS fails to include crucial economic and environmental data. The document is particularly weak in analyzing project construction, design, and operations costs. BLM chose to conclude its analysis at the point where the slurried coal arrives at the utility, ignoring the process of dewatering the coal, the BTU loss from burning damp coal, and the costs and method of disposal of spent slurry water. Failure to address these integral parts of the slurry technology has skewed several EIS analysis sections, including the economics of rail vs. slurry transportation and the energy efficiency analysis (which, despite its deficiencies, already favors rail transportation).

- The EIS fails to examine adequately the effect of pipeline water discharges on receiving bodies of water. BLM writes off the issue as a matter to be handled by local officials, who will be expected to compel compliance with federal standards. Yet the EIS offers no insight to these local communities about hazardous materials or chemical combinations which might be forthcoming.

The coal slurry industry has, as a matter of fact, refused to provide information about potential pollution when requested to do so by a Member of the House Committee on Interior and Insular Affairs during a 1981 hearing. The information is vital to communities at or downstream from discharge points at pipeline terminals. It is also important to communities and aquatic habitat along the pipeline route where the environment and public health would suffer from pipeline ruptures and spills. I have brought along for the Committee some photographs of a rupture which occurred in the Black Mesa coal slurry pipeline operation.

It may be that modern technology is sufficient to solve these problems. However, the costs--both economic and environmental--have yet to be evaluated. There is a suspicious hesistancy on the part of the slurry industry to be forthcoming about these costs and their intentions.

- The EIS contains fundamental conceptual errors concerning the nature of the proposal and the ultimate project. During the months of preparation of the draft and final EIS, ETSI altered the project description in very significant ways. Though it is clear that some of these decisions were made by ETSI during the EIS process, the changes were not in most cases announced until the public comment period on the Final EIS had closed.

ETSI's elusive methods of decision-making make it difficult for federal, State and private interests to evaluate the merits and impacts of the project, nor can we easily draw comparisons between ETSI and those projects in early stages of design. ETSI is establishing a pattern of elusiveness for the coal slurry industry in general which will render it impossible to make the findings required by S.1844.

Two changes in particular are causing consternation in Western and Midwestern States: the rerouting of ETSI through Colorado and the purchase of 50,000 acre feet of water annually from South Dakota's Oahe Project.

BLM devoted its analytical efforts to the Nebraska pipeline route favored by ETSI in its initial project description and public scoping sessions. Not until a few days after the public comment period on the Final EIS did it become clear that ETSI was in fact obtaining its rights-of-way options through Colorado and had abandoned some weeks before its plans to cross Nebraska. Because this information was withheld, BLM devoted only 15 pages to the Colorado alternative in an EIS document which runs to many hundreds of pages.

Use of Oahe reservoir water was considered an unlikely alternative source during the preparation of the EIS. As a result, BLM devoted some 17 pages to its analysis. Yet a few days after the close of the public comment period on the Final EIS, Governor Janklow of South Dakota and ETSI announced their agreement to divert Missouri River Basin water to Wyoming. The negotiations had been underway for months, yet kept secret from the BLM environmental task force and the public.

The problems created by this water sale are not limited to the question of the adequacy of the EIS. South Dakota's sale has inflamed the citizens of the downstream states in the Missouri River Basin. The precedent set by the interbasin transfer of millions of acre feet of water over the life of the project is frightening.

It is particularly aggravating to find that ETSI bought 30,000 annual acre feet more than is needed for the Wyoming-to-Louisiana pipeline. ETSI has been blunt about its plans to resell the excess Missouri Basin water to two other proposed coal slurry pipelines: Texas Eastern's Wyoming-to-Texas project and the Northwest Integrated Coal Energy System (NICES) line from Wyoming to Oregon.

Governor Janklow has tried to pass off the ETSI sale as South Dakota's "just dues" for that State's tremendous sacrifice of land for construction of Pick-Sloan/Missouri River System projects. With due respect to the Governor, that is simply not the situation. South Dakota enjoyed the benefits of large construction spending and jobs over a 20-year period. Presently, the Oahe Reservoir provides a wide range of benefits to South Dakota. The state receives an equitable proportionate share of hydroelectric power generated by those projects. The Reservoir is used extensively by South Dakota residents. South Dakota, in fact, lobbied very hard for Congressional approval of Pick-Sloan and landowners were paid fair market value and relocation costs where flooding required compensation.

What South Dakota ignored in making this sale was Congressional intent that the federal investment in the Pick-Sloan/Missouri River Basin projects would benefit citizens of the Missouri River Basin. We believe, as a corporate citizen of the Lower Basin, that the diversion of 50,000 annual acre feet of water outside the Basin primarily benefits the citizens of Louisiana, Arkansas, and Oklahoma and therefore violates the law. We simply cannot concur with the claim of the State of South Dakota that it owns all the Missouri River waters that pass through the State.

The reduction in flow results in the loss of use of this water time and time again as it moves through the Basin. The revenues which would normally result from beneficial use are reduced accordingly.

For example, one principal and legitimate use of Missouri project water is for navigation. The Basin's farmers and other shippers depend upon this navigation for transportation of goods to downstream markets. Their navigation season was shortened by three weeks in 1981 because of drought, and the U.S. Army Corps of Engineers predicts similar problems this year.

Mississippi River navigation is similarly dependent upon the Missouri Basin, which contributes up to 60 percent of the flow of the Mississippi below St. Louis. According to the Corps, the timely release of impounded water from the Missouri River Projects between 1968 and 1980 made possible an additional 268 days of navigation on the Mississippi.

Even if the impact of the ETSI withdrawal from the Missouri Basin were to have no measurable impact on navigation, it is clear that the precedent set by such interbasin transfers bears thoughtful evaluation. Continued piecemealing of the water resource has potentially devastating effects. We believe, further, that the sale aggravates an already worrisome problem developing with the Pick-Sloan power account.

The Department of the Interior in 1978 ordered an audit of the Pick-Sloan Missouri Basin power account. The auditors were not able to unsnarl many aspects of the Pick-Sloan marketing and repayment accounts. They simply concluded that the manner in which Pick-Sloan was being managed was "unrealistic" at best--or at worst, "based on an unreality."

They refused to deal in hard numbers for the Pick-Sloan deficit, though. Rather, Interior announced that it will take until the middle of the 22nd Century to repay the account's obligation. From that conclusion has developed an interdepartmental dispute that is too tedious to serve any purpose this morning. The documentation on these developments is available if needed.

Having accomplished nothing substantive toward solving the structural and institutional problems with the power account, Interior now plans to abandon the incomplete audit in about four weeks.

In the meantime, the Bureau of Reclamation has submitted its FY '83 budget to the Congress. The budget justification documents for Pick-Sloan indicate that the Bureau and the Western Area Power Administration (WAPA) at the U.S. Department of Energy will propose power rate increases in the immediate future.

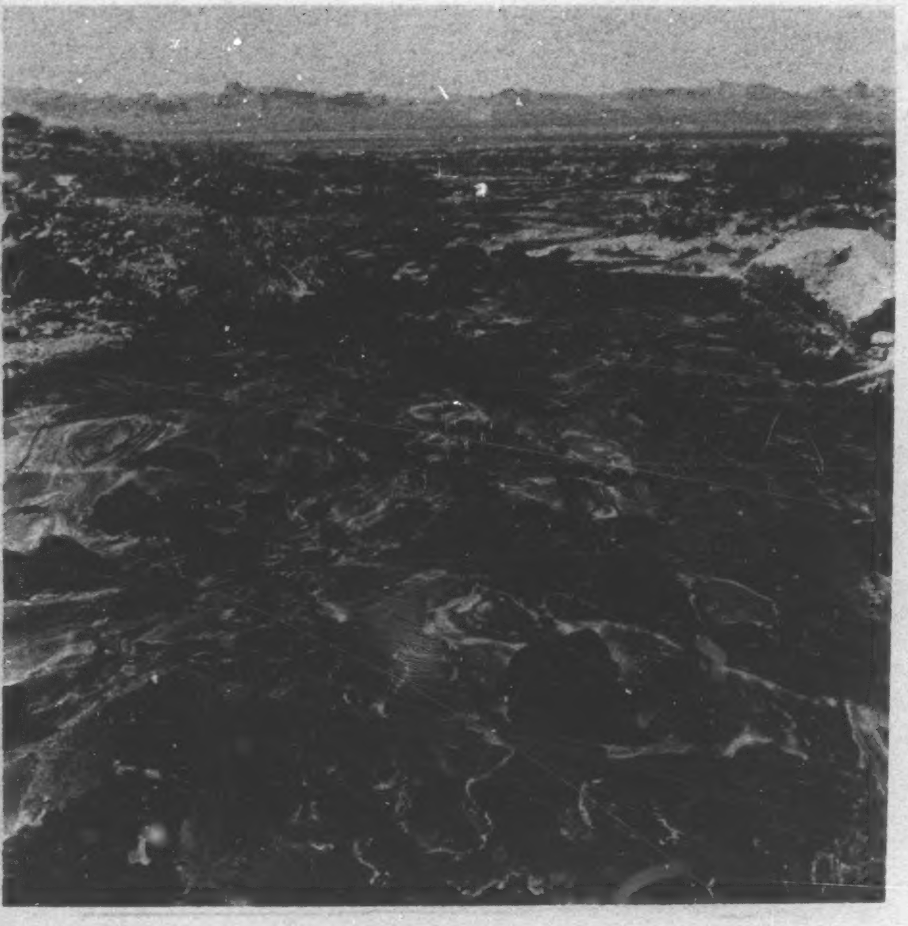
This suggests to us that the Bureau is knowingly about to enter into a major water service contract with ETSI despite their knowledge that Pick-Sloan is functionally bankrupt and that there is a strong likelihood that the $30-acre-foot water service fee is inadequate--and may contribute further to the serious fiscal condition of the power account.

I'm not suggesting that Pick-Sloan is in any danger of going up on the sheriff's auction block. But then, how do we ultimately unsnarl this cost and accounting problem? Like the Kirwin Irrigation District in Kansas, will the Missouri Basin Congressional delegations be asked to support a deferral of the Pick-Sloan obligations?

The railroad industry is affected by many other coal slurry issues upon which I have not touched today. I do not mean to diminish the importance of these issues to the Kansas City Southern system or to the shippers we serve. I know, however, that the Association of American Railroads, for which we are a Member of the Board of Directors, will testify on these other matters.

We have commented, instead, on the water and eminent domain issues around which we have developed special expertise because of experience with the ETSI project. For the record, we will provide additional documentation, including our detailed analysis of the ETSI EIS. Certainly, KCS personnel and outside counsel and consultants are available to the Committee should you find that additional information would be helpful.

Thank you for this opportunity to testify.



No. 81-613

IN THE
Supreme Court of the United States
OCTOBER TERM, 1981

JOY SPORHASE
AND
DELMAR MOSS,
Appellants,
v.

STATE OF NEBRASKA,
Appellee.

ON APPEAL FROM THE SUPREME COURT
OF THE STATE OF NEBRASKA

BRIEF OF THE NATIONAL AGRICULTURAL LANDS CENTER AND KANSAS CITY SOUTHERN INDUSTRIES AS *AMICUS CURIAE*

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QUESTIONS PRESENTED

I. Whether this Court's recognition of Congressional deference to state water laws, and of the states' preeminent sovereign power to conserve water, should operate to exempt Nebraska Revised Statute § 46-613.01 from review under the dormant Commerce Clause.

II. Whether the State's critical interest in conserving scarce groundwater supplies outweighs any slight burden on commerce imposed by Nebraska Revised Statute § 46-613.01.

III. Whether Nebraska Revised Statute § 46-613.01, which is rationally related to the legitimate state purpose of groundwater conservation, comports with the Equal Protection and Due Process Clauses of the United States Constitution.

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Acton v. Blundell,
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Andrus v. Allard,
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Berman v. Parker
348 U.S. 26 (1954) 29

California v. United States,
438 U.S. 645 (1978) 19, 20, 21

California Oregon Power Co. v.
Beaver Portland Cement Co.,
295 U.S. 142 (1935) 19

City of Altus v. Carr,
255 F.Supp. 828 (W.D. Tex.),
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City of Corpus Christi v. City of Pleasanton,
154 Tex. 289, 276 S.W. 2d 798 (1955) 18

City of Philadelphia v. New Jersey,
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Great Atlantic & Pacific Tea, Inc. v. Cottrell,
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Hudson County Water Co. v. McCarter,
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Hughes v. Oklahoma,
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In the Matter of the Application of Sporhase and Moss for a Permit to Construct a Well to Use Water from the Ogallala Formation of the Northern High-Plains Designated Groundwater Basin in Phillip's Co., Colo.
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Kansas v. Colorado,
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Merrion v. Jicarilla Apache Tribe,
____ U.S. ____, 50 U.S.L.W. 4169 (1982) 21

Minnesota v. Clover Leaf Creamery,
____ U.S. ____, 101 S.Ct. 715
reh. denied, 101 S.Ct. 1735 (1981) 28

Nebraska v. Sporhase,
208 Neb. 703, 305 N.W. 2d 614 (1918) 12

Pike v. Bruce Church, Inc.,
397 U.S. 137 (1970) 23, 24, 26

Reeves, Inc. v. Stake,
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State v. Michels Pipeline Construction, Inc.,
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Thompson v. Colorado Groundwater Commission,
194 Colo. 489, 575 P.2d 372 (1978) (*en banc*) 12

United States v. Bishop,
555 F.2d 771 (10th Cir. 1977) 29

Village of Belle Terre v. Boraas,
416 U.S. 1 (1974) 29

West v. Kansas Natural Gas Co.,
221 U.S. 229 (1911) 18

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Wyoming v. Colorado, 353 U.S. 953 (1957) 17

Constitutional and Statutory Provisions:

The Act of July 26, 1866, c. 262, § 9, 14 Stat. 253, 30 U.S.C. § 51, 43 U.S.C. § 661 19

The Act of July 9, 1870, c. 235 § 17, 16 Stat. 218, 30 U.S.C. § 52, 43 U.S.C. § 661 19

The Act of Feb. 26, 1897 29 Stat. 599 19

Ariz. Rev. Stat. Ann. § 45-153 (Supp. 1981) 16

Cal. Water Code § 1230 (West 1971) 16

Colo. Rev. Stat. §§ 37-81-101 *et seq.* (Supp. 1979) 16

Colo. Rev. Stat. § 37-90-107 (1974) 11

Colo. Rev. Stat. § 37-90-115 (1974) 12

Colo. Rev. Stat. § 37-90-136 (1974) 16

Desert Land Act of 1877, 19 Stat. 377 43 U.S.C. §§ 321 *et seq.* 19

Idaho Code §§ 42-401 *et seq.* (1977) 17

Kan. Stat. §§ 82a-701 *et seq.* (1977 and Supp. 1980) 15

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McCarran Amendment, 43 U.S.C. § 666 20

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Neb. Rev. Stat. § 46-613.01 (1978) .... *passim*

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Nev. Rev. Stat. §§ 534 *et seq.* (1979) 15

Neb. Sess. Laws, Chapt. 9, at 99 (1969) 24

Neb. Sess. Laws, Chapt. 281, at 759 (1967) 24

N.J. Stat. Ann. § 58:3-1 (West 1966) 16

N.M. Stat. Ann. § 72-12-19 (1978) 16

N.D. Cent. Code §§ 61-01-01 *et seq.* (1977) 15

Or. Rev. Stat. § 537.810 (1977) 16

Reclamation Act of 1891, 26 Stat. 1095, *as amended*
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Reclamation Act of 1902, § 8, 43 U.S.C. § 383 19

U.S. Const. art. I, sec. 8, cl. 10 18

U.S. Const. amend. XIV 27, 29

Upper Colo. River Compact, *approved,* 63 Stat.
31 (1949) 17

Utah Code Ann. § 73-2-8 (1980) 16

Wash. Rev. Code Ann. §§ 90.03.300,
90.16.110, 90.16.120 (1972) 16

Wyo. Stat. § 41-3-115 (1977) 16

Page

Miscellaneous:

Comment, *Do State Water Anti-Exportation Statutes Violate the Commerce Clause? or Will New Mexico's Embargo Law Hold Water?* 21 Nat. Res. J. 617 (1981) 27

Comment, *"It's Our Water!" – Can Wyoming Constitutionally Prohibit the Exportation of State Waters?* 10 Land & Water L. Rev. 119 (1974) 27

Comptroller General, General Accounting Office, *Ground Water Overdrafting Must be Controlled* (1980) 6, 10, 11

Corker, *Can a State Embargo the Export of Water by Transbasin Diversion?* 12 Idaho L.Rev. 135 (1976) 27

L. Dunlop, J. Kume, J. Thomas, *Geohydrology and Model Analysis for Water-Supply Management in a Small Area of West-Central Kansas* (U.S.G.S. 1981) 7

K. Frederick, *Irrigation and the Adequacy of Agricultural Land* (Paper presented at Resource for the Future Conference on the Adequacy of Agricultural Land, Washington, D.C.) (June 19-20, 1980) 10

Hearings of the Committee on Agriculture, Neb. Legis. (Introducer's Statement, May 1, 1969) 24

High Plains – Ogallala Aquifer Regional Study, Congressional Briefing Materials (July 10, 1979) 6, 10

Nebraska Water Service, *Groundwater Levels in Nebraska,* Paper No. 51 (1980) 12

R. Sampson, *Farmland or Wasteland – A Time To Choose* (1981) 9

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K. Sheets, *Water, Will We Have Enough To Go Around?*, U.S. News and World Report, June 29, 1981, at 35 .... 6, 10

S. Rep. No. 755, 82d Cong., 1st Sess., 3, 6 (1951) 20

D. Sheridan, *The Underwatered West*, 23 Envir. 7 (1981) 8

G. Sloggett, *Declining Ground Water Levels: Extent and Potential Impact on United States Agricultural Production* (Paper presented at 10th Annual Rocky Mountain Ground Water Conference, Laramie, Wyoming) (May 1, 1981) 10

Soil Conservation Service, U.S. Department of Agriculture, *America's Soil and Water: Conditions and Trends* (1980) 6, 7, 8, 9

Statement of Sen. Nore, 4341-4342 (Neb. Legis. floor debates, Aug. 25, 1969) 25

Statement of Sen. Ziebarth, 4313-4314 (Neb. Legis. floor debates, Aug. 25, 1969) 24

The Browning of America, Newsweek, Feb. 23, 1981, at 26 7

Trelease, *Government Ownership and Trusteeship of Water*, 45 Calif. L. Rev. 638 (1957) 15

U.S. Bureau of the Census, *Population of the Arid West, and Percent of Growth* (1979), *reprinted in* 23 Envir. 7 (1981) 8

U.S. Department of Agriculture/Council on Environmental Quality, *National Agricultural Lands Study, Final Report* (1981) 10

Page

U.S. Department of Agriculture/Council on Environmental Quality, *National Agricultural Lands Study, The Protection of Farmland: A Reference Guidebook for State and Local Governments* (1981) 10

U.S. Water Resources Council, *The Nation's Water Resources 1975-2000, Second National Water Assessment* (1978) 7

White, *Reasonable State Regulation of the Interstate Transfer of Percolating Water,* 2 Nat. Resources Law 383 (1969) 16

1 Wiel, *Water Rights in the Western States* (3d ed. 1911) 15

2 Wiel, *Water Rights in the Western States* (3d ed. 1911) 15

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ON APPEAL FROM THE SUPREME COURT
OF THE STATE OF NEBRASKA

BRIEF OF THE NATIONAL AGRICULTURAL LANDS CENTER AND KANSAS CITY SOUTHERN INDUSTRIES, AS *AMICUS CURIAE*

The National Agricultural Lands Center and Kansas City Southern Industries respectfully submit this brief as *Amicus Curiae*, having obtained consent to do so from Appellants and Appellee. Copies of these consents have been filed with the Clerk of this Court.

INTEREST OF *AMICUS CURIAE*

Because of its scarcity, the wise use and conservation of groundwater is of critical importance in the arid western and midwestern states. The need to conserve and protect scarce water supplies is reflected by the comprehensive, complementary groundwater codes of these states. Without preservation of their conservation laws and regulations, arid states will be unable to prevent depletion of scarce water supplies and the resultant threat to the nation's vitality.

The National Agricultural Lands Center (NALC) and Kansas City Southern Industries (KCSI) share a strong interest in this subject.

NALC is a nonprofit organization established to assist state and local organizations and governments in the design and implementation of agricultural resource management programs. The officers of NALC were responsible for the preparation of the recent *National Agricultural Lands Study* — a federal effort co-chaired by the Department of Agriculture and the Council on Environmental Quality — which concludes that the primary role for protecting and conserving agricultural lands must rest with state and local government, not with the federal government. The sound allocation and conservation of water, sought by western and midwestern states, is fundamental to the maintenance and management of agricultural resources. Therefore, NALC urges that the historic role of the states in allocating and regulating water resources be respected, and that the current scheme of western and midwestern water laws be upheld.

KCSI shares NALC's concern for conserving agricultural lands. KCSI is involved in a wide variety of transportation, transportation-related manufacturing, financial services, real estate and communications industry activities. KCSI's activities are largely dependent on the viability of the Missouri River Basin economy. KCSI's rail and truck transportation systems are particularly affected: approximately 35 percent of KCSI's transportation revenues are derived from the hauling of agricultural and agricultural-related products. Thus, KCSI is vitally interested in maintaining a healthy and predictable agricultural economy in the west and midwest. Current western and midwestern water laws are critical to the stability of this agricultural economy. KCSI's entire range of transportation services could also be adversely affected by the types of interstate and interbasin water transfers that could ensue if Nebraska's statute is overturned. Because its business is centered at its corporate headquarters in Kansas City, KCSI has a direct concern in the future quantity and quality of flows in the Missouri River throughout the entire region. KCSI thus urges that the Nebraska statute challenged in this case be upheld as a vital component of integrated water conservation laws of the western and midwestern states.

SUMMARY OF ARGUMENT

To conserve water in its declining underground aquifers, Nebraska Revised Statute § 46-613.01 (1978) limits out-of-state groundwater transfers. The Nebraska Supreme Court correctly determined that the Nebraska statute does not violate the Commerce, Equal Protection or Due Process Clauses of the United States Constitution.

This Court traditionally has treated water as a unique resource, recognizing its elemental importance to human existence and the viability of the states. The Court has long recognized, as a paramount aspect of their sovereignty, the states' role in conserving and allocating waters for the beneficial use of state citizens. Congress has traditionally and repeatedly deferred the control of water resources to state law. Decisions of the Court have approved this statutory theme of pervasive federal deferral and provide a basis for exempting Nebraska's statute from review under the Commerce Clause.

Even if Congressional deference to state water conservation laws is not recognized, and water is considered to be a traditional article of commerce (or if its regulation otherwise affects interstate commerce), this Court should find that Nebraska's statute does not discriminate against or unduly burden interstate commerce. The statute is not discriminatory, because it affords neighboring states a means to receive and use Nebraska groundwaters. Moreover, any burden imposed by the statute is slight, since only one of Nebraska's neighboring states has a statute that potentially could trigger the denial of Nebraska groundwater. This slight burden is greatly outweighed by Nebraska's need to prevent a critical resource from being irretrievably siphoned out of state and by the central responsibility which Congress has placed upon the states in regulating water. Moreover, no less burdensome legislation would be as effective in achieving this goal. Thus, Neb. Rev. Stat. § 46-613.01 should be upheld under the Commerce Clause.

Nebraska's statute is also fully consonant with both the Equal Protection and Due Process Clauses of the Fourteenth Amendment because it is rationally related to a legitimate state purpose.

Current western and midwestern water statutes serve to create a complementary regional system for the conservation of water. Should this Court fail to uphold the

Nebraska statute, this balance would be upset. If the states' ability to conserve water within their borders is curtailed, the interest of each state would be to acquire, appropriate, and store as much water as possible, as quickly as possible, to protect its citizens from acute water shortages. Such a race to deplete groundwater supplies in the west and midwest would not be in the national interest.

ARGUMENT

I. THE CONSERVATION AND MANAGEMENT OF SCARCE WATER RESOURCES IS OF CRITICAL IMPORTANCE TO THE WESTERN AND MIDWESTERN STATES.

A. *Water Is An Increasingly Scarce Resource.*

The scarcity of water has always been of critical concern to the arid western and midwestern states, and is currently reaching an acute stage. The demand for western water has been accelerating at a rate which threatens to strain existing supplies beyond capacity. Population increases, energy development and growing agricultural production are primary contributors to this exacerbated demand. Without comprehensive, effective water resource management and conservation plans, the western and midwestern states will be unable to prevent the depletion of available water supplies and the resulting destructive impact on the nation's economy. Water scarcity is expected to be our next resource crisis.

Available supplies of water are acquired from two major sources — surface waters and underground waters. Rivers, lakes, and streams provide surface reserves; manmade reservoirs trap much of this water and store it for later use. Groundwater comes from subsurface reservoirs that have accumulated water over long periods of time.[1] Where surface supplies are inadequate, groundwater is used to satisfy existing needs. On the average, groundwater supplies 20 percent of all freshwater used in the United States.[2] Certain regions, however, particularly areas west of the Mississippi River, rely much more heavily on groundwater.[3]

Groundwater supplies are rapidly diminishing. For example, the Ogallala aquifer, the nation's largest underground reservoir, has been depleting in many areas at the alarming rate of 3 feet per year.[4] The Ogallala underlies the states from Texas to South Dakota, an area which produces nearly a quarter of the total value of U.S. agricultural exports.[5] Researchers have predicted that the Ogallala's entire supply will disappear within 40 years.[6] Depletion of the Ogallala has been even more severe in particular areas. For example, the U.S. Geological Survey has reported that groundwater levels in western Kansas, served by the Ogallala aquifer, have declined more than 62 feet since 1950[7] and it has been predicted that the water table in another area of Kansas will drop an additional 15 to 30 feet by 1988.[8] Arizona authorities report that groundwater levels in certain areas of the state are falling at approximately 7 to 10 feet per year.[9] Similar problems prevail in the other states sharing the aquifer.

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[1] *See* Soil Conservation Service, U.S. Department of Agriculture, *America's Soil and Water: Conditions and Trends* 24 (1980) [hereinafter cited as *America's Soil and Water*].

[2] Comptroller General, General Accounting Office, *Groundwater Overdrafting Must be Controlled* 1 (1980) [hereinafter cited as *Overdrafting*].

[3] For instance, groundwater provides 62 percent of the total water used in Arizona. *Id.*

[4] K. Sheets, *Water, Will We Have Enough to Go Around?,* U.S. News & World Report, June 29, 1981, at 35. [hereinafter cited as *Water*].

[5] *High Plains-Ogallala Aquifer Regional Study,* Congressional Briefing Materials (July 10, 1979).

[6] *Water, supra* note 4, at 35. Congress considered the depletion of the aquifer to be so critical to agricultural and economic concerns that it authorized the pending High Plains-Ogallala Aquifer Regional Study, Pub. L. No. 94-587, 90 Stat. 2943.

Declining groundwater is due, in part, to the fact that groundwater replenishes very slowly.[10] More importantly however, an alarming increase in withdrawals from underground aquifers is posing a threat to the nation's water supply. Overdrafting, the extraction of more water than can possibly be replenished, is being utilized to satisfy accelerating water demands. In 1950, 12 trillion gallons of water were extracted from underground reservoirs. That figure doubled by 1980.[11]

The overdrafting problem is most acute in the western and some midwestern states. As rainfall in the region is generally deficient, measuring as little as 4 inches annually in certain areas,[12] these states utilize groundwater as their predominant source of fresh water. Existing supplies of groundwater are being strained, however, due to population increases, energy development, and greater agricultural production.

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[7] L. Dunlop, J. Kume, J. Thomas, *Geohydrology and Model Analysis for Water-Supply Management in a Small Area of West-Central Kansas* (U.S.G.S. 1981).

[8] *Id.*

[9] *America's Soil and Water, supra* note 1, at 27.

[10] While the entire continental United States receives an average of 30 inches of annual precipitation, only 3 inches eventually becomes groundwater. *Id.* at 20, 24.

[11] *The Browning of America*, Newsweek, Feb. 23, 1981, at 26. *See also* U.S. Water Resources Council, *The Nation's Water Resources 1975-2000, Second National Water Assessment* 18, 25 (1978).

Western states have become more densely populated in recent years. In 1880, the arid west[13] housed 3 percent of the total population of the United States. By 1970, total population had increased many times and the west's proportion had grown to 14 percent. During the period from 1960 to 1970 alone, the arid west's population rose 27 percent.[14] According to 1978 census data, this growth rate has accelerated even further, with the arid west maintaining many of the country's fastest growing "Sunbelt" urban centers.[15] These metropolitan areas rely heavily on groundwater for their economic development, and thus have contributed to the area's overdrafting problem.

In addition to urban development, increased energy development and use in the west have burdened the available water supply. Newly-developed fuel technologies including oil shale, coal gasification, and coal liquefaction also require substantial water for operation. Other energy sources such as thermal power, petroleum refining, and flue gas desulfurization demand further water. Not only will energy projects, such as coal slurry pipelines, irretrievably divert significant amounts of western and midwestern water, but population growth created by an influx of construction workers and energy company employees will place even greater demands on existing supplies. This strain will increase during the coming decade.

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[12] *America's Soil and Water, supra* note 1, at 20.

[13] The term "arid" is used to describe those western regions that receive less than 20 inches of annual rainfall.

[14] D. Sheridan, *The Underwatered West*, 23 Envir. 7 (1981).

[15] U.S. Bureau of the Census, *Population of the Arid West, and Percent of Growth* (1979), *reprinted in* 23 Envir. 7 (1981).

Notwithstanding these new competitors, agriculture remains the nation's largest water consumer, accounting for 83 percent of total use.[16] Agricultural output depends on irrigation. The U.S. Department of Agriculture estimated that during the last decade irrigated farm land increased at a rate of 1.4 million acres per year.[17] If the trend continues, agricultural productivity will require ever-increasing amounts of the nation's water supply.

B. *The Effects of Diminishing Water Resources Will Be Severe.*

The decline of available water resources, particularly underground water, threatens the nation's vitality. Agricultural production will suffer the most significant harm. Irrigation is particularly essential for western and midwestern agriculture – five out of every six irrigated acres are located in seventeen western and midwestern states.[18] Average yields and productivity traditionally are higher on irrigated farms, and irrigated agriculture currently accounts for more than one-quarter of the nation's crops.[19] The High Plains region alone accounts for approximately 20 percent of the production of many of the nation's key agricultural commodities.[20]

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[16] *America's Soil and Water, supra* note 1, at 21.

[17] *Id.* at 25.

[18] R. Sampson, *Farmland or Wasteland – a Time to Choose* 156 (1981).

[19] *Id.* at 155-157.

Excessive pumping of underground water may force a deep cut in agricultural production. Many crops cannot grow without irrigation, and in some areas a return to dryland farming would result in no crop production at all.[21] Economic realities will also make existing water supplies less accessible to the nation's farmers. As water tables decline, more energy is needed to pump the water to the earth's surface, at a far higher cost.[22]

The effects on agriculture of diminishing water supplies are of major importance to local, state, national, and international interests. Not only does U.S. agriculture supply the nation with its daily food, but it exports large quantities of food abroad. Agricultural exports totaled $41.3 billion in 1980, and world demand for U.S. food products is expected to grow by as much as 140% to 250% over the next twenty years.[23] Agriculture's export role enhances the national economy by increasing the foreign exchange rate and reducing the trade deficit.[24] Moreover, because of growing populations, increasing numbers of people throughout the world depend on American-grown food for survival.

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[20] *Water, supra* note 4. *See also High Plains-Ogallala Aquifer Regional Study,* Congressional Briefing Materials (July 10, 1979).

[21] G. Sloggett, *Declining Ground Water Levels: Extent and Potential Impact on United States Agricultural Production* 13 (Paper presented at the 10th Annual Rocky Mountain Ground Water Conference, Laramie, Wyoming) (May 1, 1981).

[22] *Overdrafting, supra* note 2, at 7; K. Frederick, *Irrigation and the Adequacy of Agricultural Land* (Paper presented at Resource for the Future Conference on the Adequacy of Agricultural Land, Washington, D.C.) (June 19-20, 1980).

[23] U.S. Dept. of Agriculture/Council on Environmental Quality, *National Agricultural Lands Study, Final Report* 14 (1981).

[24] U.S. Dept. of Agriculture/Council on Environmental Quality, *National Agricultural Lands Study, The Protection of Farmland: A Reference Guidebook for State and Local Governments* 32 (1981).

Excessive mining of groundwater also renders existing supplies unusable due to saltwater intrusion. As freshwater is pumped from an aquifer, saline water moves in to fill the void. Saline contamination is difficult to reverse, and can cause permanent damage to the water supply.[25] To date, forty-two states have reported significant saltwater intrusion problems.[26] The greater the withdrawal of underground water, the more severe become the problems of structural damage to the land,[27] and saline contamination of water supplies. Continued overdrafting, if not controlled, may have vast adverse effects on the nation's entire water system.

C. *The Facts of This Case Underscore Western and Midwestern Water Scarcity Problems.*

The Ogallala aquifer, discussed above, is the source of the water in dispute in this case, underlying appellants' property in both Colorado and Nebraska. Appellants initially attempted to obtain Ogallala water from Colorado to irrigate their Colorado land. The Colorado Groundwater Commission denied appellants' permit request, concluding, pursuant to Colo. Rev. Stat. § 37-90-107 (1974), that the Ogallala in that area of Colorado was already being depleted by parties with prior rights and that additional pumping would lead to an unacceptable decline in water tables.[28] Taking advantage of the fact that they happened to own an adjacent land parcel in Nebraska,[29] appellants began pumping from the Nebraska side of the same aquifer, without a permit, into their Colorado parcel. They were subsequently enjoined by the State of Nebraska.[30] Nebraka, like Colorado, faces very serious depletion problems with its share of the Ogallala.[31]

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[25] *Overdrafting, supra* note 2, at 5.

[26] *Id.*

[27] *Id.* at 3, 4.

The facts in this case, therefore, highlight the acute shortage of western and midwestern water generally, and Ogallala water in particular.

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[28] *In the Matter of the Application of Sporhase and Moss for a Permit to Construct a Well to Use Water from the Ogallala Formation of the Northern High-Plains Designated Groundwater Basin in Phillips Co., Colo.,* File No. A.D. 6826 (Colo. Groundwater Commission, Aug. 27, 1977). While appellants could have appealed this decision pursuant to Colo. Rev. Stat. § 37-90-115 (1974), they failed to do so. In order to avoid aquifer depletion wars with adjacent states, Colorado is particularly careful to regulate pumping near state lines to avoid infringement on the adjacent state's water. *See Thompson v. Colorado Groundwater Commission,* 194 Colo. 489, 575 P.2d 372 (1978) (*en banc*). The Commission took this policy into account.

[29] Appellant's Colorado land parcel is separated from their Nebraska parcel by a state highway. Joint Appendix at 112 [hereinafter referred to as J.A. at ____].

[30] J. A. at 23. Appellants subsequently alleged that, because Colorado had no reciprocal provision, as required under Neb. Rev. Stat. § 46-613.01, this would have precluded them from obtaining a permit, and appellee agreed. *See Nebraska v. Sporhase,* 208 Neb. 703, 305 N.W. 2d 614 (1981); Colo. Rev. Stat. § 37-90-136 (prohibits export of tributary and non-tributary groundwater).

[31] In Southwestern Nebraska, where appellants sought water, the groundwater decline has been averaging approximately one foot per year. *See* Nebraska Water Service, *Groundwater Levels in Nebraska,* Paper No. 51 (1980).

D. *This Case Threatens Fundamental Conservation Principles.*

In summary, water scarcity problems threaten to escalate into a full-fledged resource crisis. This Court should be extremely cautious in this review as state water laws provide the only systematic structure for water conservation in the west and midwest. The states of that region have enacted remarkably complementary water regulation systems. If the states are denied their ability to conserve their water reserves, the entire region will be denied a key element in its conservation system, since Congress has historically deferred water control to the states, and since the internecine realities of regional water issues have precluded Congressional enactment of any coherent federal conservation scheme.

While the states must undertake more comprehensive water conservation and management if a crisis is to be averted, this case threatens to preclude entirely such an effort. If states with critical water conservation problems are unable to regulate the flow of their waters across their borders, it will be in the interest of citizens in every state to reach for another state's water resources. The result will be a water rush and a corresponding maze of interbasin water transfers that will accelerate the draining of the region. Agriculture and transportation interests which depend on agriculture will be among the first victims.

II. THIS COURT'S RECOGNITION OF THE STATES' SOVEREIGN POWERS TO CONSERVE WATER AND OF CONGRESSIONAL DEFERENCE TO STATE WATER LAWS OPERATES TO EXEMPT NEBRASKA STATUTE § 46-613.01 FROM JUDICIAL REVIEW UNDER THE DORMANT COMMERCE CLAUSE.

A. *The Current System Of Western Water Laws Is Necessary For The Protection Of Scarce Water Supplies.*

In view of the critical shortage of water in the western and midwestern United States, the arid states have an especially compelling need to regulate water supplies.[32] Consequently, the water codes of western and midwestern states manifest a dominant theme of wise use and conservation of a finite resource esential to economic growth and human survival.

The current system of groundwater legislation developed out of dissatisfaction with English common law. England, reflecting its water-rich status, afforded absolute ownership of groundwater to the overlying landowner, who could sell it as he could other property. The basis for the rule was the abundance of water and the belief that the ways of underground water were too mysterious and unpredictable to permit the establishment of fair rules for its use. *See State v. Michels Pipeline Construction, Inc.*, 63 Wisc. 2d 278, 217 N.W. 2d 339, 344

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[32] The arguments in this brief are directed at the ability of the states to exercise conservation controls over water. The arguments made herein are not relevant to situations where a state wastes or abuses water. Nothing in this brief should be construed to imply that a state has the ability to abuse its trusteeship position over its water, by, for example, polluting it or selling it for use in interbasin transfers, which would prejudice the interests of states or users sharing the water source.

(1974), *citing Acton v. Blundell,* 12 Mees. & W. 324, 350, 351, 152 Eng. Rep. 1223 (Ex. 1843).

The English rule generally was followed by American courts through the mid-nineteenth century. However, the need to protect groundwater from wasteful depletion, as well as the developing understanding of the hydrologic cycle, led the courts to reject the underpinnings of the rule.

By the turn of the century courts steadily turned away from the English rule and began applying the rule of "reasonable use." 2 Wiel, *Water Rights in the Western States* 973 (3d ed. 1911). The rule of reasonable use recognizes that the overlying landowner has a proprietary interest in groundwater, but sharply restricts the extent of the landowner's control and the incidents of ownership. Under the rule, the nature of the property right is usufructuary rather than absolute, as under the English rule. 1 Wiel, *supra,* at 20-21. Private usufructuary rights exist by virtue of, and are subject to, the law of the place where the water is located. Trelease, *Government Ownership and Trusteeship of Water,* 45 Calif. L. Rev. 638 (1957).

Seventeen western and midwestern states, including Nebraska, currently govern groundwater rights through the superimposition of groundwater appropriation statutes upon the common law foundation of either reasonable use or absolute ownership. *See, e.g.,* Kan. Stat. §§ 82a-701 *et seq.* (1977 and Supp. 1980); Mont. Rev. Codes Ann. §§ 85-2-501 *et seq.* (1978-79); Nev. Rev. Stat. §§ 534 *et seq.* (1979); N.D. Cent. Code §§ 61-01-01 *et seq.* (1977). The water laws of appropriation states share certain basic provisions: (1) the waters are declared to be public, state-controlled property; appropriators gain only usufructuary rights, not ownership; (2) groundwater may be appropriated for beneficial use; and (3) permits are required in order to appropriate groundwater. White, *Reasonable State Regulation of the Interstate Transfer of Percolating Water,* 2 Nat. Resources Law 383, 402 (1969). Clearly, water has not been treated by these states as a traditional article of commerce. Rather, states act in a trusteeship role, exercising control, not ownership, over the water, contingent upon the extent of the interests and rights of states that share the aquifer or surface flow.

To respect and accommodate their common water interests, fourteen states (thirteen in the west or midwest) have statutes regulating the diversion of water outside the state.[33] These statutes are an essential part of the network of limitations on water use west of the Mississippi, which begin with statutory and regulatory limits over the way individual landowners use water and conclude with an extensive system of agreements between states worked out through interstate compacts or equitable apportionment orders. Nearly all water in the area is from sources shared with the other states — either shared river basin systems or shared underground formations. The western and midwestern states are obliged (by compacts or orders, which supersede other state laws) to recognize each other's water rights, although each state retains rights to control for its citizens the limited amounts of water not controlled by other states. The state water diversion statutes, such as Nebraska's, are an intrinsic part of this legal network; they enable each state, acting as a trustee, to exercise limited controls over those waters to which they are entitled (either through the doctrine of equitable apportionment or by compact), without out-of-state infringement on its trust prerogatives.

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[33] *See* Ariz. Rev. Stat. Ann. § 45-153 (Supp. 1981); Cal. Water Code § 1230 (West 1971); Colo. Rev. Stat. §§ 37-81-101 *et seq.* (Supp. 1979), § 37-90-136 (1974); Idaho Code §§ 42-401 *et seq.* (1977); Kan. Stat. § 82a-726 (1977); Mont. Rev. Codes Ann. § 85-1-121 (1978-79); Neb. Rev. Stat. § 46-613.01 (1978); Nev. Rev. Stat. §§ 533.515 *et seq.* (1979); N.J. Stat. Ann. § 58:3-1 (West 1966); N.M. Stat. Ann. § 72-12-19 (1978); Or. Rev. Stat. § 537.810 (1977); Utah Code Ann. § 73-2-8 (1980); Wash. Rev. Code Ann. §§ 90.03.300, 90.16.110, 90.16.120 (1972); Wyo. Stat. § 41-3-115 (1977).

Central to the interstate compacts and to the equitable apportionment decisions of this Court is the assumption that a state may reserve for use within its borders the waters that have been equitably apportioned to it. *See, e.g., Wyoming v. Colorado,* 353 U.S. 953 (1957) (Colorado apportioned water for in-state use only); Upper Colo. River Compact, *approved,* 63 Stat. 31 (1949) (allocations to each state of proportions of the river; no state can exceed apportioned use to the detriment of another). The compacts and equitable apportionment decisions would be meaningless without this assumption. Striking the Nebraska statute would eliminate the state's ability to protect its waters and would also eliminate an essential part of the mutual water accommodation system built up over the past century in the west and midwest.

B. *The Nebraska Statute Should be Exempt From Judicial Review Under the Dormant Commerce Clause.*

The power to allocate and conserve water resources is a vital attribute of state sovereignty, since water is the one natural resource essential to the very existence of the state. Accordingly, this Court has long recognized the paramount interest of a state to conserve waters for the use of its citizens. Writing for the Court in *Hudson County Water Co. v. McCarter,* 209 U.S. 349 (1908), Mr. Justice Holmes observed that "few public interests are more obvious, indisputable, and independent of particular theory than the interest of the public of a state to maintain the rivers that are wholly within it substantially undiminished, except by such drafts upon them as the guardian of the public welfare may permit . . . ." *Id.* at 356.[34] This Court should continue to accord the conservation of water a unique position in federal-state relations,[35] and should refuse to examine Nebraska Revised Statute § 46-613.01 under traditional commerce clause analysis.[36]

The history of Congressional deference to state water law also counsels deference to Nebraska's statute. Congress has consistently recognized the need to observe state water law, and has affirmatively acted to protect state water law from federal encroachment. For example, the Desert Land Act of 1877, 19 Stat. 377, 43 U.S.C. §§ 321 *et seq.*, which encouraged reclamation of public desert lands in the west, granted plenary control to the states over all nonnavigable waters formerly part of public desert lands. *See California Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142 (1935). Similarly, Congress expressly indicated that reclamation would be controlled by state water law in the Reclamation Act of 1891, 26 Stat. 1095, as amended, 43 U.S.C. § 946; the Act of Feb. 26, 1897, 29 Stat. 599; and the Reclamation Act of 1902, § 8, 43 U.S.C. § 383. *See also* the Act of July 26, 1866, c. 262 § 9, 14 Stat. 253, 30 U.S.C. § 51 and 43 U.S.C. § 661, and the Act of July 9, 1870, c. 235 § 17, 16 Stat. 218, 30 U.S.C. § 52, 43 U.S.C. § 661 (U.S. to recognize, on federal lands, vested water rights established by state law).

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[34] In *Hudson County,* this Court upheld a New Jersey statute that prohibited the export of surface water. In holding the statute to be outside the reach of the Commerce Clause, the Court found that the qualified right to use water, given by the state, is not expanded into the right to treat water as an article of commerce, merely by the desire to use the water in interstate commerce. 209 U.S. at 357. *See also West v. Kansas Natural Gas Co.,* 221 U.S. 229 (1911) (Court, discussing *Hudson,* explicitly distinguished water from natural gas in finding that Oklahoma could not constitutionally prohibit the export of natural gas). *City of Altus v. Carr,* 255 F.Supp. 828 (W.D. Tex.), *aff'd per curiam,* 325 U.S. 35 (1966), did not affect the validity of *Hudson County,* because Texas adhered to the English common-law view that absolute ownership of groundwater belonged to the landowner. *See City of Corpus Christi v. City of Pleasanton,* 154 Tex. 289, 276 S.W. 2d 798, 801 (1955). Captured groundwater was, under Texas law, an article of commerce. Since water was not treated as an article of commerce under the applicable law in *Hudson,* and since it is not so treated in Nebraska, *Hudson* remains precedent for upholding Nebraska's statute.

[35] In *Reeves, Inc. v. Stake,* 447 U.S. 429 (1980), this Court was persuaded in part by considerations of state sovereignty to exempt from review under the Commerce Clause South Dakota's sales of cement from a state-owned and operated cement plant. 447 U.S. at 438, and nn. 10 & 11. Given the much more extreme sovereign interest of a state in preserving and allocating the one resource essential for its continued existence, state control over water should be treated with at least equal deference as state control over state-owned cement.

[36] *See* U.S. Const. art I, sec. 8, cl. 10.

This Court recently emphasized Congress' intent to vest in the states primary control over their waters. In *California v. United States*, 438 U.S. 645 (1978), the Court stated:

> [t]he history of the relationship between the Federal Government and the states in the reclamation of the arid lands of the Western States is both long and involved, but through it runs the consistent thread of purposeful and continued deference to state water law by Congress.

438 U.S. at 653.

The Court in *California* relied on consistent Congressional deference to state water law in holding that the Reclamation Act of 1902 allows the states to impose conditions on the control, appropriation, use or distribution of water from a federal reclamation project, so long as they are not inconsistent with specific Congressional directives regarding the project. *Id.* at 674-76. In examining the history and extent of Congressional deference, the Court quoted from the Senate Report on the McCarran Amendment, 43 U.S.C. § 666, which subjects the United States to state law and state court jurisdiction in water adjudications:[37]

> In the arid western states for more than 80 years, the law has been the water above and beneath the surface of the ground belongs to the public, and the right to the use thereof is to be acquired from the State in which it is found, *which state is vested with the primary control thereof.*
>
> * * * * *
>
> *Since it is clear that the states have the control of water within their boundaries,* it is essential that each and every owner along a given water course, including the United States, must be amenable to the law of the state, if there is to be a proper administration of water law as it has developed over the years. S. Rep. No. 755, 82d Cong., 1st Sess., 3, 6 (1951).

Id. at 678-79 (emphasis added).

The "proper administration of water law" would be threatened if the Nebraska statute is successfully challenged in this case. Invalidating the statute would throw into disarray Nebraska's comprehensive plan for conserving water, and would cast doubt on the groundwater conservation schemes in all the western and midwestern states. Those states would be helpless to control the inevitable

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[37] At the time of the enactment of the McCarran Amendment, approximately eleven states had statutes limiting out-of-state water diversions.

"race to the bottom of the aquifer" that would result from a holding by this Court that states may not control out-of-state diversions of scarce groundwater.

In light of the critical sovereign state interest involved and the repeated federal statutory deference to state control of water, this Court should exercise restraint in reviewing Nebraska's challenged regulation of groundwater. *California,* in its broad construction of the federal statutes deferring to state water control, empowers the states to conserve and manage their water resources and is fully applicable in this case. Thus, the application of the dormant Commerce Clause is not needed here to prevent states from burdening commerce, since Congress has already "struck the balance it deems appropriate." *Merrion v. Jicarilla Apache Tribe,* ____ U.S. ____, 50 U.S.L.W. 4169, 4175 (1982). Accordingly, this Court should decline to review the Nebraska statute under the Commerce Clause.

III. SHOULD THIS COURT DETERMINE THAT REVIEW UNDER THE COMMERCE CLAUSE IS APPROPRIATE, REGULATION OF GROUNDWATER UNDER NEBRASKA REVISED STATUTE § 46-613.01 DOES NOT UNDULY DISCRIMINATE AGAINST OR BURDEN INTERSTATE COMMERCE.

Given the vital importance of water to the western and midwestern states and the concomitant necessity for the states to conserve scarce supplies, it is clear that Nebraska's statute does not facially discriminate against interstate commerce, in contrast to the statutes struck down in *Hughes v. Oklahoma,* 441 U.S. 322 (1979) and *City of Philadelphia v. New Jersey,* 437 U.S. 617 (1978).[38]

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[38] The burden to show discrimination against interstate commerce rests with the party challenging the validity of the statute. *Hughes,* 441 U.S. at 336. Appellants have not even alleged, much less made *any* showing, that the Nebraska statute discriminates against interstate commerce.

In each of these cases, the state statutes placed absolute bars on interstate commerce: the statute in *Hughes* barred out-of-state transport of minnows, 441 U.S. at 337, while the statute in *City of Philadelphia* barred transport of waste into the state, 437 U.S. at 627. Moreover, neither of the states placed *any* restrictions on similar dispositions of the regulated articles intra-state. *Hughes,* 441 U.S. at 338, *City of Philadelphia,* 437 U.S. at 628-29.

Nebraska's reciprocity provision is in no way comparable to an absolute bar on interstate transport; in fact, it provides sister states with the opportunity to receive and use Nebraska groundwater within their borders. In addition, the Nebraska statute places restrictions on the use of groundwater within the state, as well as on its transport out of the state.

Moreover, the purpose of reciprocity provisions in statutes such as Nebraska's is not discrimination, but cooperation in a regional effort to maintain a stable system of western water use and management. Preventing state efforts to condition export of scarce water supplies on reciprocity would undermine conservation efforts and provide an incentive for rapid and maximum use of water by other states and private citizens.

Finally, even were this Court to find that the Nebraska reciprocity provision does operate to discriminate against interstate commerce, the statute should be upheld because it utilizes the least discriminatory means available for the achievement of a concededly legitimate purpose. The Nebraska permit requirement for export of groundwater is part of a comprehensive legislative scheme for the conservation and use of groundwater. *See* Memorandum Opinion of the District for Chase County, Nebraska (Dec. 17, 1979). J.A. at 19. Thus, the statute is entirely distinguishable from those involved in *Hughes* and *City of*

Philadelphia, where this Court found that in-state users of minnows and landfill sites were not subject to conservation measures. *See* 441 U.S. at 338; 437 U.S. at 629. The Nebraska statute, in contrast, clearly does not "force those outside the state to bear the full costs of 'conserving' . . . ," 441 U.S. 337, because it imposes many restrictions on instate use of groundwater. J.A. at 19.

That Nebraska has chosen the least discriminatory means available to protect its groundwater from being squandered is clear for other reasons as well. To be fully achieved, the goal of conservation must prevent wasteful use in-state and uncontrollable diversions out-of-state. To prevent the latter, Nebraska has not flatly prohibited the export of groundwater. Rather, it has conditioned export on reciprocity — a condition necessary to protect against diversions of groundwater to states that prohibit exports of their waters. Irretrievable out-of-state diversions of water would clearly contravene the purpose of conservation. It would be unwise to require a state to sacrifice a scarce and critical natural resource essential to its own growth only to promote that same kind of growth in a sister state. *See generally Kansas v. Colorado,* 206 U.S. 46, 117-18 (1906). Thus, having chosen the least discriminatory means available for the conservation of its waters, Nebraska should not have § 46-613.01 of its water code stricken as unconstitutionally discriminatory.

Moreover, by conditioning out-of-state transport on reciprocity, the Nebraska statute does not unduly burden interstate commerce. The prevailing test for assessing the constitutionality of the burden imposed by a state regulation under the Commerce Clause was articulated by this Court in *Pike v. Bruce Church, Inc.*, 397 U.S. 137 (1970). Under the *Pike* test, a statute which does not discriminate against, but only incidentally burdens interstate commerce, will be held constitutionally valid,

> unless the burden imposed on [interstate] commerce clearly outweighs the putative local benefits. If a legitimate local purpose is found, then the question is one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with lesser impact on interstate activities. [citations omitted].

Id. at 142. Nebraska's permit requirement for the exportation of groundwater clearly satisfies this balancing test.

Nebraska Revised Statute § 43-613.01 was passed in 1967 and revised in 1969 as part of a systematic revision of Nebraska's water management and conservation laws, after major legislative studies, extensive hearings in Nebraska and surrounding states, and careful review of the extent of Nebraska's groundwater problems.[39] The reciprocal agreement language in the legislation also, in part, reflected the outcome of negotiations with the state of Kansas on how best to encourage groundwater exchanges while conserving water supplies.[40] A floor statement from a leading proponent of the 1969 law illustrates the extent and the legitimacy of the conservation concerns behind the entire statute:

> We are going to have a water problem. I do considerable irrigating myself and . . . I am almost

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[39] Neb. Sess. Laws Chapt. 281, at 759 (1967) (Legis. Bill 415); Neb. Sess. Laws, Chapt. 9, at 99 (1969) (Legis. Bill 1357); Hearings of the Committee on Agriculture, Neb. Legis., 19 *et seq*. Introducer's Statement, May 1, 1969).

[40] Statement of Sen. Ziebarth, 4313-4314 (Neb. Legis. floor debates, Aug. 25, 1969).

> sure that we are going to run out of underground water, not clear out but we are going to be short. And then, we are going to wonder why we didn't do something thirty, forty, or fifty years ago, or ten years ago or five years ago. This . . . legislation is probably one of the most important activities that we are participating in this year . . . .[41]

Appellants concede that the State of Nebraska has a legitimate local purpose underlying its groundwater regulation — to conserve and manage a scarce natural resource. *App. Brief* at 19, 26. Yet, in reliance on *Great Atlantic & Pacific Tea, Inc. v. Cottrell,* 424 U.S. 366 (1976), appellants contend that it "borders on the frivolous" to claim that Nebraska's reciprocity provision serves the purpose of conserving and managing water resources. *App. Brief* at 21. However, *Cottrell* is so clearly distinguishable from the instant case that it is simply inapplicable.

In *Cottrell,* this Court reviewed a statute which prohibited in-state sales of out-of-state milk absent reciprocity by the sister state. 424 U.S. at 367. The Court found that the challenged provision actually *disserved* its purported objectives of maintaining state health standards, since milk of a lower quality could be sold in Mississippi if a reciprocal agreement existed. 424 U.S. at 375. Since Nebraska statute under *no* circumstances would disserve the conservation of Nebraska's water, appellants' reliance on *Cottrell* is misplaced. Indeed, it is clear that the purposes of water conservation and management are precisely served by a statute which seeks to prevent water from being irretrievably siphoned out-of-state.

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[41] Statement of Sen. Nore, 4341-4342 (Neb. Legis. floor debates, Aug. 25, 1969).

Further, appellants' argument that the reciprocity clause does not guarantee a return of water to Nebraska is not on point. *See App. Brief* at 22. The standard of review does not require absolute guarantees of success. Rather, the standard of review is whether a legitimate purpose is served by the statute, and if so, whether the incidental burden imposed by the statute is exceeded by its benefits. *Pike v. Bruce Church Inc.*, 397 U.S. 137, 142 (1978).

Nebraska's interest in maintaining a comprehensive plan for the management and conservation of water is obviously legitimate and its benefits far outweigh the incidental burden imposed on interstate commerce by Nebraska Revised Statute § 46-613.01. Indeed, the interest in protecting the supply of water ranks foremost among a state's legitimate goals, since water is such a vital resource. *See Hudson County Water Co.*, 209 U.S. at 356. Congress' consistent recognition, discussed above, of the need for states to play the central role in water regulation, underscores the importance of this interest. Given the critical nature of this state interest, the burden that will be tolerated on interstate commerce should be a heavy one.

In addition, the reciprocity provision here in no way acts as an absolute bar to the export of water; it merely conditions export on the existence of reciprocal rights to groundwater from the receiving state. A review of the groundwater statutes of adjoining states reveals that, at most, only Colorado's restrictions on export of its groundwater would even potentially trigger the denial of a permit to export Nebraska water.[42] The negotiations that took place between Nebraska and Kansas over the terms of their reciprocity requirements, as well as the extensive network of interstate compacts reached between the states, demonstrate that the limitations in Nebraska's statute can be accommodated.

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[42] *See* Colo. Rev. Stat. § 37-90-136 (1974) (prohibits export of tributary or nontributary groundwater).

Any resultant burden that is imposed on commerce by the Nebraska statute is far outweighed by the local interest involved and by the lack of effective alternatives. It is manifestly necessary for states, especially those in arid regions, to be able to control the rate and circumstances under which their scarce supplies of water are depleted.[43] In light of the competing and increasing agricultural, energy, municipal, and industrial demands for already over-appropriated water supplies, a Court-imposed constitutional mandate for unrestrained export of water could literally sap the life of the western and midwestern states. Thus, the Nebraska requirement that groundwater not be exported absent reciprocity from the receiving state should be upheld as a reasonable restriction on interstate commerce.

IV. NEBRASKA REVISED STATUTE § 46-613.01 IS FULLY CONSONANT WITH THE PROVISIONS OF THE FOURTEENTH AMENDMENT OF THE UNITED STATES CONSTITUTION.

A. *The Statute Does Not Constitute a Denial of Equal Protection of the Laws.*

The standard of judicial review under the Equal Protection Clause[44] requires that in order for a state statute to withstand judicial scrutiny, the classification made must be rationally related to the achievement of the statutory purposes. *Minnesota v. Clover Leaf Creamery,* ____ U.S.____, 101 S.Ct. 715, 723, *reh. denied,* 101 S.Ct. 1735 (1981). The Equal Protection Clause is satisfied so long as the Court concludes that the state legislature could have rationally decided that its regulation might serve a legitimate state purpose. *Id.* at 725.

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[43] *See generally* Corker, *Can a State Embargo the Export of Water by Transbasin Diversion?* 12 Idaho L. Rev. 135 (1976); Comment, *Do State Water Anti-Exportation Statutes Violate the Commerce Clause? or Will New Mexico's Embargo Law Hold Water?* 21 Nat. Res. J. 617 (1981); Comment, *"It's Our Water!" — Can Wyoming Constitutionally Prohibit the Exportation of State Waters?* 10 Land & Water L. Rev. 119 (1974).

[44] U.S. Const., amend. XIV.

Appellants concede that Nebraska's objective of groundwater conservation for the public welfare is a legitimate state purpose. *App. Brief* at 19, 26. Therefore, the narrow issue remaining for this Court to determine is whether the legislative classification between appropriators in a state offering reciprocity and those in a state which does not offer reciprocity is rationally related to the achievement of conservation of Nebraska ground water.[45]

In *Clover Leaf,* the parties challenging the statute provided impressive empirical evidence at trial to prove that the probable consequences of the regulation would in fact be contrary to the state's purpose. *Id.* at 723. However, this Court, applying the "rational basis" test, held that a party must *convince* the Court that the legislative facts on which the classification is based could not reasonably have been conceived to be true by the legislative decisionmaker. *Id.* at 724.

Appellants in the instant case have not met this burden. It was clearly rational for the Nebraska legislature to have decided that the preservation and conservation of groundwater would be served by permitting its transport, if at all, only to those states where reciprocal access to groundwater is available. Accordingly, the Nebraska statute satisfies the requirements of the Equal Protection Clause.

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[45] While appellants make the unsupported contention that "any governmental acts which treat people in a dissimilar manner are unconstitutional" under the Equal Protection Clause, *App. Brief* at 26, this is *not* the standard by which this Court reviews a statute under the Equal Protection Clause. *Clover Leaf,* 101 S.Ct. at 724.

B. *The Statute Does Not Constitute a Substantive Due Process Violation*

The Nebraska statute regulating the use of groundwater will withstand judicial scrutiny under the Due Process Clause[46] if it bears a rational relationship to a permissible state objective. *See Village of Belle Terre v. Boraas,* 416 U.S. 1, 7-8 (1974); *Berman v. Parker,* 348 U.S. 26, 32-33 (1954) (upholding land use regulations under the Fourteenth Amendment).

As discussed above under equal protection analysis, Nebraska's regulation of groundwater use to enhance its conservation is clearly a permissible state objective. Moreover, the Nebraska legislature rationally concluded that in order to foster this goal, groundwater should not be permitted to be siphoned off into a state which does not make its groundwater available for use in Nebraska. Therefore, appellants cannot meet the burden for striking down the statute as a violation of due process.

Appellants' contention that the reciprocal provision unreasonably subjects them to decisions of the legislature of other states is erroneous, and unsupported by case law.[47] Nebraska's statute does not delegate any of its legislative authority to other states. The Nebraska legislature conclusively arrived at the initial determination that it does not serve the goals of groundwater conservation to permit the transport of Nebraska groundwater to a state that does not make its groundwater available for use in Nebraska. Moreover, even if a state were to permit such reciprocal rights, this facts satisfies only one of the conditions for granting a permit to transport groundwater out of Nebraska. The ultimate decisions as to the reasonableness of the withdrawal and use, and its effects on conservation and the public welfare, still lie within the state of Nebraska, in the Director of Water Resources.[48]

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[46] U.S. Const., amend. XIV.

[47] Even if the reciprocal provision could be viewed as subjecting appellants to the contingencies of other states' laws, a legislature is within its powers in predicating the operation of a statute upon the occurrence of contingencies beyond the legislature's control. *See United States v. Bishop,* 555 F.2d 771 (10th Cir. 1977).

CONCLUSION

For each of the foregoing reasons, this Court should affirm the decision of the Nebraska Supreme Court.

Respectfully submitted,

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[48] Appellants also suggest that a taking or deprivation occurs as a result of the Nebraska statute. *App. Brief* at 24, 26. However, they fail to demonstrate any liberty or property right on which to base this claim. Clearly, the tenuous relationship between the Nebraska statute and any reduction in the value of appellants' land will not support a takings claim. *See Andrus v. Allard,* 444 U.S. 51, 66 (1979). This claim is particularly tenuous in light of Colorado's earlier denial of groundwater to appellants.

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No. 81-613

In The

Supreme Court of the United States

October Term, 1981

JOY SPORHASE AND DELMER MOSS
INDIVIDUALLY AND AS REPRESENTATIVES OF
SPORHASE AND MOSS,
Appellants,
vs.
STATE OF NEBRASKA EX REL.
PAUL L. DOUGLAS, ATTORNEY GENERAL,
Appellees.

ON APPEAL FROM THE SUPREME COURT OF THE STATE OF NEBRASKA

BRIEF FOR THE APPELLANTS

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QUESTIONS PRESENTED

1. Whether Neb. Rev. Stat. § 46-613.01 (Reissue 1978) which prohibits the interstate transportation of ground water, and is conditioned upon reciprocal legislation in the recipient states, imposes an undue and unreasonable burden upon interstate commerce in violation of the Commerce Clause of the United States Constitution.

2. Whether Neb. Rev. Stat. § 46-613.01 (Reissue 1978) is unconstitutional and violates the due process and equal protection provisions of the United States Constitution.

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BRIEF FOR THE APPELLANTS

OPINIONS BELOW

The opinion of the Supreme Court of Nebraska is reported at 305 N.W. 2d 614, 208 Neb. 703 (1981). The opinion of the District Court for Chase County, Nebraska is not reported.

STATEMENT OF JURISDICTION

Joy Sporhase and Delmer Moss have appealed from a final judgment entered by the Supreme Court of Nebraska which enjoined the Appellants' efforts to transport ground water from a Nebraska well into the State of Colorado.

The opinion was entered on May 8, 1981. A motion for rehearing was entertained and denied on July 8, 1981. Notices of appeal were duly filed by the Appellants on September 17, 1981. The Jurisdictional Statement was filed with this Court on September 24, 1981. The Court noted probable jurisdiction on November 30, 1981. The jurisdiction of this Court is invoked under 28 U.S.C. § 1257 (2).

STATUTORY PROVISIONS

Neb. Rev. Stat. § 46-613.01 (Reissue 1978) of the Nebraska Constitution provides as follows:

> Any person, firm, city, village, municipal corporation or any other entity intending to withdraw ground water from any well or pit located in the State of Nebraska and transport it for use in an adjoining state shall apply to the Department of Water Resources for a permit to do so. If the Director of Water Resources finds that the withdrawal of the ground water requested is reasonable, is not contrary to the conversation and use of ground water, and is not otherwise detrimental to the public welfare, he shall grant the permit if the state in which the ground

water is to be used grants reciprocal rights to withdraw and transport ground water from that state for use in the State of Nebraska.

Colo. Rev. Stat. Section 37-81-101 of the Colorado Constitution provides as follows:

> UNLAWFUL TO DIVERT WATER FOR APPLICATION OUTSIDE OF STATE. (1) The general assembly hereby finds and declares that the location and availability of water in this state varies greatly from place to place and that such variation precludes the reasonable application of general law to situations and regions of such diversity. Accordingly, the general assembly hereby determines that, for the purpose of aiding and preserving unto the State of Colorado and all its citizens the use of all the water of the springs, lakes, ponds, creeks, rivers, streams and watercourses of this state, which waters do not increase with the growth of population and which are necessary for the health and prosperity of all the citizens of the State of Colorado, and for the growth, maintenance and general welfare of the state, it is unlawful for any person, corporation, or association to divert, carry or transport by ditches, canals, pipes, conduits, natural streams or watercourses the waters of any spring, reservoir, lake, pond, creek, river, stream or watercourses of this state into any other state for use therein. Where the same owner of agricultural land in Colorado owns agricultural land in the adjacent state that is contiguous with the agricultural land in Colorado, specific authorization of the General Assembly, on the advice of the state en-

gineer, is required to enable the water to be used in the adjacent state for agricultural purposes only. In deciding whether or not to authorize the diversion of water from Colorado into another state, the general assembly shall consider the willingness of said state to allow diversion of its water for use in Colorado.

(2) This section shall not apply to section 37-81-103.

Article 1 § 8, Cl. 3 of the United States Constitution provides as follows:

> To regulate commerce with foreign nations, and among the several States, and with Indian tribes.

The 5th Amendment to the U. S. Constitution provides as follows:

> No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

The 14th Amendment to the U. S. Constitution provides as follows:

> All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No state shall make or enforce any law which

shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

STATEMENT OF CASE

1. Joy Sporhase and Delmer Moss, the Appellants, are residents of Phillips County, Colorado, and own adjacent and contiguous tracts of land in Chase County, Nebraska, and in Phillips County, Colorado.

2. A valid irrigation well physically located on the Nebraska tract is used for irrigating crops on both the Nebraska and Colorado tracts of land.

3. This particular well was registered with and approved by the Department of Water Resources of the State of Nebraska by Appellants' predecessors in title on January 18, 1971. The Nebraska Well Registration Number is G-33893.

4. Sporhase and Moss purchased the real estate involved at an auction in February of 1972 and expended approximately $43,500.00 to develop the irrigation system on the property.

5. On September 21, 1976, the Nebraska Department of Water Resources sent the Appellants a letter which informed them that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) prohibited the irrigation of lands in Colorado with water from a Nebraska well. The Department's letter summarily determined that the Appellants were in viola-

tion of the statute and that litigation would follow if the Appellants continued to irrigate their Colorado land.

6. The Petition initiating this action was filed by Paul L. Douglas, Attorney General of the State of Nebraska, on September 30, 1977, against Joy Sporhase and Delmer Moss, individually and as representatives of Sporhase and Moss, a family partnership, requesting that the District Court of Chase County, Nebraska, grant a permanent injunction restraining the Appellants from transporting ground water pumped from a well located in the State of Nebraska into the State of Colorado.

7. Sporhase and Moss answered on June 5, 1978, claiming eight (8) affirmative defenses regarding the transportation of ground water from their well in Nebraska into Colorado. Their answer contained the constitutional arguments presented before this Court.

8. A pre-trial conference was held on September 8, 1978, limiting the issues to be determined at trial to the pleadings and the evidence presented.

9. The issues tried by the District Court were:

(1) Whether the Appellants were required to obtain a permit to transport ground water out of Nebraska as required by Neb. Rev. Stat. § 46-613.01 (Reissue 1978);

(2) Whether Neb. Rev. Stat. § 46-613.01 (Reissue 1978) was unconstitutional.

10. A trial was had before the District Court of Chase County, Nebraska on January 12, 1979. On September 17, 1979, District Judge Jack H. Hendrix filed a Memorandum Opinion which required Sporhase and Moss

to obtain a permit to transport ground water out of Nebraska. The District Court's opinion also ruled that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) was constitutional.

11. Sporhase and Moss filed a motion for a new trial and motion for order to stay the injunction on December 26, 1979.

12. On December 23, 1980, the District Court overruled the motion of Sporhase and Moss for a new trial and sustained their motion for an order to stay the injunction.

13. Sporhase and Moss then appealed to the Supreme Court of Nebraska. In their brief to the Nebraska Supreme Court, the Appellants reiterated the claim that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) was unconstitutional.

14. On May 8, 1981, the Nebraska Supreme Court filed its opinion which considered and expressly rejected the constitutional claims made by the Appellants, thereby sustaining the Order of the District Court.

15. Sporhase and Moss filed a motion for rehearing on May 20, 1981, which was overruled by the Nebraska Supreme Court on July 8, 1981.

16. Their claims thus considered and dismissed, Sporhase and Moss perfected an appeal to the United States Supreme Court. On September 17, 1981, they filed a notice of appeal to the United States Supreme Court. On September 24, 1981, the Appellants filed with this Court a Jurisdictional Statement and on November 30, 1981, probable jurisdiction was noted.

SUMMARY OF ARGUMENT

The Nebraska Supreme Court in this case granted the relief sought by the State of Nebraska by enjoining the Appellants, Sporhase and Moss, from transporting ground water located in Chase County, Nebraska into Colorado without a permit. This holding ignores the clear meaning of case law which limits a state's right to control the exportation of its natural resources, particularly water.

The decision by the Nebraska Supreme Court cannot be reconciled with the holding in *City of Altus, Oklahoma v. Carr,* 255 F. Supp. 828 (W. D. Tex. 1966), affirmed per curiam 385 U. S. 35 (1967), in which the Supreme Court issued a per curiam decision affirming the lower Court's holding that restrictions on the exportation of water violated the Commerce Clause of the United States Constitution. This Court's ruling in *Altus,* although nothing more than a one sentence affirmation of the lower Court, provided an authoritative voice for resolving future cases involving the exportation of water.

Sporhase and Moss contend that water is, in fact, an article of interstate commerce and that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) unreasonably effects interstate commerce by restricting its exportation. They also contend that the application of the statute effects interstate commerce since it will restrict the production of agricultural products which are moved in interstate commerce.

Our view of the law and facts of this case leads us to believe that while a state may legislate to protect the health of its citizens or to conserve its natural resources, the legislation must be a reasonable exercise of the police power and cannot unduly burden the free flow of interstate commerce. However, Neb. Rev. Stat. § 46-613.01 (Reissue 1978) clearly fails to pass inspection on these two points. By including an unreasonable limitation which requires reciprocity in the recipient state, the statute absolutely prohibits the transportation of water. Clearly the reciprocity clause does not serve the interests of Nebraska in maintaining or conserving its water resources. According to the statute, before a permit is allowed or denied a determination must be made to find if the withdrawal of water is reasonable, not contrary to the conservation and use of ground water, and not otherwise detrimental to the public welfare. In this case there is no evidence that such a determination was made. Sporhase and Moss may not transport ground water simply because Colorado has no reciprocity clause. Thus, even if the transfer of ground water is reasonable, not contrary to the conservation and use of ground water, and is clearly beneficial to the public welfare, it could not be transferred. The reciprocity clause thus disserves rather than upholds Nebraska objectives.

Neb. Rev. Stat. § 46-613.01 (Reissue 1978) also violates the rights of the Appellants since it unreasonably acts upon citizens of Nebraska who desire to transport water across state lines while doing little, as discussed above, to further legitimate state interests.

ARGUMENT

I.

Neb. Rev. Stat. § 46-613.01 (Reissue 1978) violates the Commerce Clause of the United States Constitution.

The ruling by the Nebraska Supreme Court, which held that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) did not violate the Commerce Clause of the United States Constitution, is an erroneous analysis of applicable law and the facts of this case. First of all, ground water should be considered an article of interstate commerce. Secondly, in this case, the application of Neb. Rev. Stat. § 46-613.01 (Reissue 1978) results in an unreasonable and undue burden on interstate commerce.

In the context of this case, ground water should be considered an article of interstate commerce. The ground water is drawn from the Ogallala Aquifer which extends through the central portion of the United States, and the flow of which is generally towards the east from Colorado to Nebraska. The ground water pumped from the well is applied to agricultural products and much of this water percolates back into the ground. Ground water is simply part of the hydrologic cycle. In *Metropolitan Utilities District v. Merritt Beach Company,* 173 Neb. 783, 140 N. W. 2d 626, 636 (1966), the Nebraska Supreme Court recognized this scientific fact:

> Underground waters, whether they are percolating waters or underground streams, are part of the waters refered to in the Constitution as a natural want. Such waters are as much a part of the hydrologic cycle as the flow of water in a stream or river.

The right to appropriate and transfer underground water was also discussed in *Metropolitan Utilities District,* 140 N. W. 2d at 637. The Court held that the Metropolitan Utilities District could drill wells on one piece of land and transport the water to other locations for sale to customers. Therefore, while there may be limitations upon the use of ground water in Nebraska, it is obvious that it is an item which can be moved from one area to another to serve the citizens of Nebraska.

Just as the State of Nebraska has shown that ground water is capable of being transported and sold by its decision in *Metropolitan Utilities District, supra,* the ruling in *City of Altus, Oklahoma v. Carr,* 255 F. Supp. 828 (W. D. Tex.), affirmed per curiam 385 U. S. 35 (1967), offers insight into the question of whether ground water can be considered an article of interstate commerce. In *Altus* the Supreme Court there affirmed per curiam, a Federal District Court decision that held a Texas statute, which restricted the transportation of ground water from Texas to consumers in Oklahoma, was in violation of the Commerce Clause.

In *Altus,* the city of Altus, Oklahoma, facing a severe water shortage, began to develop sources of water to meet its future needs. The city soon discovered a sufficient source of water in Texas but before any could be exported the Texas Legislature enacted a bill which read:

> No one shall withdraw water from any underground source in this state for use in any other state by drilling a well in Texas and transporting the water outside the boundaries of the state unless the same be specifically authorized by an act of the Texas Legislature, and thereafter as provided by it.

This statute was declared to be an unconstitutional restriction on interstate commerce. It is our contention that the case at bar falls within the scope of *Altus.*

The State of Texas urged that the statute was not a burden or restriction on interstate commerce for two reasons. First, Texas argued that the purpose and intent of the statute was to "conserve and protect the water resources of the state by regulating the withdrawal of water from underground sources." Secondly, Texas urged that "since the statute here in question operates on and regulates underground water, which is not the subject of absolute ownership, it does not affect a substance which is the subject of commerce." Obviously, both arguments were rejected by the Court.

The State of Nebraska has raised the same arguments in defense of Neb. Rev. Stat. § 46-613.01 (Reissue 1978). However, we regard *Altus* as a reliable basis for the answer to these questions and contend there is no reason or principle which would dictate a different result in the present case.

The State of Nebraska believes that *Altus* has no applicability to the present case since laws regarding the use and ownership of water are somewhat different in the two cases. We believe this difference to be insignificant. The *Altus* case involved Texas water laws which follow the English Rule of absolute ownership. Under this legal theory, a landowner owns everything above and below his land. Consequently, landowners have the right to withdraw any quantity of water they desire. Their water may be wasted, sold and used without regard to drainage on adjacent lands. *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798 (1955). However, it should be obvious that under this theory a landowner does not really own the ground water under his land since he cannot prevent his neighbor from lowering his water level through waste or otherwise.

Nebraska's law on water rights seems to be a mixture of the American Rule, which is the reasonable use doctrine, and the doctrine of Correlative Rights. *Olson v. City of Wahoo,* 124 Neb. 702, 248 N. W. 304 (1933). Under this theory there are no limitations on the use of ground water as long as it is reasonably and beneficially used on overlying land. However, if the water supply is insufficient for all overlying landowners, each is entitled to a reasonable portion of the whole. *Harnsberger, Oeltjen & Fisher, Groundwater: From Windmills to Comprehensive Public Management,* 52 Neb. L. Rev. 179, 205 (1973). In theory, Nebraska's laws on water rights are more restrictive than the Texas laws involved in *Altus.* In practice, however, there appears to be little difference. While under the absolute theory a landowner can waste water and do with it as he pleases, it appears that waste or use on non-overlying lands may also occur under the reasonable use theory unless and until another landowner's rights are interfered with. *Canada v. City of Shawnee,* 179 Okla. 53, 64 P. 2d 694 (1937). Therefore, it seems that a landowner may withdraw groundwater for sale unless the adjoining landowner is deprived of the water needed for the beneficial use of his land. It appears that the rights of overlying landowners to use ground water are nearly equal under the English and American rules. As long as the use is reasonable or it doesn't injure an adjacent landowner, a landowner under the reasonable use doctrine may do as he wishes with the water.

It is respectfully suggested that the differences in the legal theories of water rights do not provide assistance and have little relevance in determining whether water is an article of interstate commerce. In all states one merely has the right to use water and this right of use is clearly a property right. *Sax, Water Law,* p. 2, 1965; *United States v. Willow River Power Co.,* 324 U. S. 499 (1945). However, as discussed *supra,* no water right is as sacrosanct as an absolute ownership in land.

Based upon the arguments above, it appears that water, like any other species of property, may be reduced to possession and used. The fact that water uses may be limited to some degree, should not preclude it from being considered an article of interstate commerce. Nor should an item be exempted from the protections of the Commerce Clause simply because it is an important resource. While the State of Nebraska is operating under these erroneous presumptions, Sporhase and Moss believe that water should be treated no differently than any other personal or property right which is conditioned by a reasonable use requirement. In these days of increased regulation, it seems that very few items could be considered articles of interstate commerce, if regulations and limitations on use served to disqualify the item from such consideration.

While a state is justified in preventing the waste of its natural resources and may enact proper legislation to do so, states do not have an absolute power to restrict the exportation of its natural resources, or articles it claims to own, without interfering with the Commerce Clause. A review of the United States Supreme Court cases shows that natural resources have been recognized as articles of interstate commerce, thereby limiting the ability of states to regulate their movement between the states. *Hughes v. Oklahoma,* 441 U. S. 322 (1979). In *Pennsylvania v. West Virginia,* 262 U. S. 553, 596 (1923), the Supreme Court stated:

> "The question is an important one; for what one state may do others may, and there are ten (10) states from which natural gas is exported for consumption in other states. Besides, what may be done with one natural product may be done with others, and there are several states in which the earth yields products of great value which are carried into other states and there used."

Clearly, states will no longer be allowed to confine their resources and the resulting benefits to their people whenever such confinement impedes interstate commerce. *Baldwin v. Fish and Game Commission of Montana,* 436 U. S. 371 (1978). This rationale was also used in *West v. Kansas Natural Gas Company,* 221 U. S. 229 (1910), in which the State of Oklahoma urged its right to conserve the natural resources of the state for use by its own citizens, stressing the limited supply and the absence of alternative sources within the state. Nevertheless, the Court rejected this argument:

> "If the states have such power, a singular situation might result. Pennsylvania might keep its coal, and the Northwest its timber, and the mining states their minerals, and why may not the products of the field be brought within that principle?"

In *Baldwin v. G. A. F. Seelig, Inc.,* 294 U. S. 511 (1935), Judge Cardoza stated that the Commerce Clause "was framed upon the theory that the peoples of the several states must sink or swim together, and that in the long run prosperity and salvation are in union and not in division." Historically, the Supreme Court has desired cooperation among the states and has viewed the Commerce Clause as an avenue for avoiding any balkanization in the realm of commerce which, of course, would insure economic inefficiency and lower productivity.

That the statute effects interstate commerce can hardly be doubted. In *NLRB v. Jones and Laughlin Steel Corporation,* 301 U. S. 1 (1937), the United States Supreme Court held that any activity, either local or interstate, which by itself or in combination with other activities has a substantial economic effect upon interstate commerce is within the scope of the Commerce Clause and may not be unreasonably interfered with. The regulation of the use of water, certainly by itself, or in combination with other factors, will have an effect upon interstate commerce. The fact that the exportation of water is restricted certainly effects interstate commerce. Also, by denying water to Sporhase and Moss, the Nebraska statute will effectively stop the production of crops moved in interstate commerce, since water is an essential and critical need in the production of crops. And it is beyond dispute that the production of agricultural items will effect interstate commerce. *Maneja v. Waialua Agricultural Company,* 349 U. S. 254 (1955); *Wickard v. Filburn,* 317 U. S. 111 (1942); *H. P. Hood v. DuMond,* 336 U. S. 525 (1949). Without question, Courts in the heartland of America recognize the significance of agricultural products and the national and international markets to which they are sent. *Cape Co. v. Wiebe,* 196 Neb. 204, 241 N. W. 2d 830 (1976).

In *Wickard,* the Supreme Court applied the test used in *NLRB, supra,* and held that farm production which is intended for consumption on the farm is subject to regulation, since it might have a substantial economic effect upon interstate commerce. If the economic effect upon interstate commerce is the true test of whether local activities can be regulated by Congress under the Commerce Clause, it seems that limiting the exportation of water and subsequently the production of crops, are clearly within the Commerce Clause and, therefore, can only be regulated in a reasonable manner.

Equally without merit is any suggestion by the State of Nebraska that this case should be decided on the basis of *Hudson County Water Company v. McCarter*, 209 U. S. 349 (1908). In *Hudson* this Court held that New Jersey could prohibit the transportation of water into New York without violating the Commerce Clause.

We contend that the precedential nature of this antiquated case, if any, is fleeting and nebulous at best. While the case at bar deals with waters which are appropriated, *Hudson* involved riparian rights. Furthermore, the decision by Justice Holmes expressly limited the case when he stated in 209 U. S. at 356,

> "The problems of irrigation have no place here. Leaving them on one side. . . ."

While it may be correct to refer to *Hudson* as a landmark case of the past, in view of the limitations and antiquity, the emphasis by the State of Nebraska upon *Hudson* appears to be misplaced.

In summary, Sporhase and Moss urge this Court to accept the message in *Altus*: a statute prohibiting the use of water from an underground source for use in another state is an unconstitutional burden on interstate commerce. In our view, water is clearly an article of interstate commerce and it is also obvious that the regulation of water has a close and substantial effect upon interstate commerce, namely, the production of crops. For these reasons Sporhase and Moss argue that this case is within the scope of the Commerce Clause, and that any restrictions upon ground water and its uses must be reasonably and rationally connected to the state's objectives.

The Nebraska Supreme Court was also erroneous in concluding that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) is a valid exercise of the state's police power. Sporhase and Moss respectfully suggest that the statute places an undue burden and unconstitutional restraint upon interstate commerce.

A review of authoritative cases establishes that in order for legislation to be a valid exercise of the police power, it cannot be arbitrary or discriminatory but must have a rational and substantial relation to the objects sought. *Village of Euclid v. Ambler Realty Company,* 272 U. S. 365 (1926). Moreover, the Commerce Clause of the United States Constitution forbids a state from imposing unreasonable and undue burdens on interstate commerce. *Southern Pacific Company v. Arizona,* 325 U. S. 761 (1945); *Huron Portland Cement Company v. City of Detroit,* 326 U. S. 440 (1960).

In our view, Neb. Rev. Stat. § 46-613.01 (Reissue 1978), is not a reasonable exercise of the police power over local affairs. As mentioned above, the purpose of the Commerce Clause was to create a free flow of commerce between the states and to prevent "parochial legislative policies" such as the Nebraska statute. *H. P. Hood v. DuMond,* 336 U. S. 538. Obviously, states may pass legislation on matters of local concern, and it is true that not all legislation is unconstitutional simply because it effects interstate commerce in some manner. *Milk Control Board v. Eisenberg Farm Products,* 306 U. S. 346 (1939). If the legislation effects interstate commerce this

Court must attempt to balance the interest and accommodate the local and national needs. The approach taken by the Supreme Court in recent cases dealing with the constitutionality of statutes effecting interstate commerce is the rule applied in *Pike v. Bruce Church, Inc.*, 397 U. S. 137, 142 (1970):

> Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits . . . if a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will, of course, depend on the nature of the local interest involved, and whether it could be promoted as well with a lesser impact on interstate activities.

The Nebraska statute regulating the exportation of water is concerned with a justifiable, legitimate state interest and at first glance appears to fall within the scope of the police power. While the state's interest in conserving natural resources is similar to the state's interest in protecting the health, welfare and safety of its citizens, no statute serving these interests may cause an undue burden on interstate commerce either as written or applied. According to the statute, the Director of Water Resources can make a determination to find if the transfer of ground water is reasonable, not contrary to the conservation and use of ground water, and is not otherwise detrimental to the public welfare. But no such study or determination was made. The only discovery which Nebraska attempted to make was whether the State of Colorado had a reciprocity clause and the decision to prevent the transfer of ground water was based solely upon the lack of this reciprocity. However, as applied, the statute imposes an unreasonable burden on interstate commerce since it absolutely bars the exportation of water when adequate and less burdensome alternatives exist. It is our contention that the reciprocity requirement certainly has no rational relationship to the object sought and cannot be justified upon any factual basis when viewed in conjunction with existing alternative measures able to serve Nebraska's interests.

Sporhase and Moss believe the question concerning the constitutionality of Nebraska statute can be answered by reference to *Great Atlantic and Pacific Tea Company, Inc. v. Cottrell,* 424 U. S. 366 (1976), in which this Court struck down a Mississippi regulation excluding from Mississippi milk which was produced in other states unless that state accepted Mississippi milk on a reciprocal basis. It was held that under the Commerce Clause, Mississippi could not refuse to allow milk into Mississippi solely on the basis of reciprocity since the reciprocity requirement caused an undue burden on interstate commerce and could not be justified as a permissible exercise of the state's police powers in maintaining health standards.

While the Mississippi regulation included safeguards to insure that only wholesome milk would enter Mississippi, it also included a clause requiring reciprocity. The effect of reciprocity did not slip by the Court, which stated at 424 U. S. 375:

> Although not in terms an absolute and universal bar to sales of out of state milk, which was the effect of the Madison Ordinance, invalidated in Dean Milk, the barrier of the reciprocity clause to sales of out-of-

> state milk in Mississippi has in this case also "in practical effect exclude(d) from distribution in (Mississippi) wholesome milk produced . . . in (Louisiana).

At 424 U. S. 375, the court also discussed the argument by the State of Mississippi that the reciprocity clause helped achieve the state's goals:

> Mississippi's contention that the reciprocity clause serves its vital interests in maintaining the State's health standards borders on the frivolous. The clause clearly does not do so in the sense of furthering Mississippi's established milk quality standards.

The Court noted that states with lower milk standards than Mississippi's could get their milk admitted to Mississippi by entering into reciprocity agreements. However, a state with very high milk quality standards could not get its milk admitted to Mississippi unless it had such an agreement. Clearly, the reciprocity clause did nothing to further Mississippi's goal of protecting the health of its citizens.

The Court went on to say the Mississippi statute caused a situation where the "burden imposed on interstate commerce is clearly excessive in relation to the putative local benefits, and that obvious alternatives existed for protecting the health of Mississippi's citizens."

In our view Nebraska's claim, similar to the one advanced by Mississippi, that the reciprocity clause serves the state's objectives by conserving and managing its water resources "borders on the frivolous." The clause clearly does nothing to enhance the vital interests of Nebraska. It is not hard to imagine the results which could occur when basing such a decision solely upon reciprocity. As Nebraska's Chief Justice Norman Krivosha pointed out in his dissent, if "one could find that even though there was an abundance of water in an area in Nebraska, so much so that flooding was eminent, the water could not be transferred to adjoining land because the adjoining state refused to grant reciprocity." It is easy to envision a situation where water could be transported into a dry state which had reciprocity and which would never have the ability to export water back to Nebraska, while at the same time, no water could be given to a water-saturated state which could someday provide Nebraska with its water supply. Even if all the states surrounding Nebraska had reciprocity clauses that fact would not insure that Nebraska would ever receive a drop of water in return. The recipient state would not have to enter into a contract to replace each drop of water it received from Nebraska since that is not required. Only reciprocity is needed. In our view Nebraska could have attained its goals by making the determination called for in the statute. The statutory tests are less burdensome than a decision based solely upon reciprocity since reciprocity acts as an absolute bar and the decisions based upon the determinations called for in the statute would be made on a case-by-case basis and would truly reflect the interests of the State of Nebraska.

II.

Neb. Rev. Stat. § 46-613.01 (Reissue 1978) is unconstitutional and violates the Due Process and Equal Protection Clauses of the United States Constitution.

The concept of substantive due process provided in the Fourteenth Amendment is basically a test of the reasonableness of a statute in relation to the government's power to enact such legislation. The primary purpose of this section of the Constitution is to protect the people of the United States from the arbitrary and unreasonable exercise of powers by state governments. It is our position that the Nebraska statute, with its unwieldy reciprocity clause, has no rational connection with the state's objective of managing and protecting Nebraska's water resources. The statute seems to be in conflict with no less an authority than the United States Supreme Court which has held that all legislative activity and any exercise of the police power must be limited by notions of reasonableness and require a substantial relationship between the legislation and the objectives sought to be achieved. *Village of Euclid v. Ambler Realty Company, supra.*

The classic statement of the rule in *Lawlor v. Steel,* 152 U. S. 133 (1894) is still valid:

> To justify the state in . . . interposing its authority in behalf of the public, it must appear first, that the interests of the public require such interference; and second, the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals.

The means used in Neb. Rev. Stat. § 46-613.01 (Reissue 1978) are not "reasonably necessary for the accomplishment" of the state's goals and are obviously "unduly oppressive upon individuals." The means used in this statute will not reasonably accomplish any expressed purpose, but will merely succeed in shutting off an irrigation well, thus causing Sporhase and Moss severe economic injury. The Appellants will no longer be able to produce crops or irrigate their land and they will be denied the reasonable use of their land. Clearly the statute operates as a taking without compensation. *Arverne Bay Construction Co. v. Thatcher*, 287 N. Y. 222, 15 N. E. 2d 587 (1938).

The reciprocal portion of Neb. Rev. Stat. § 46-613.01 (Reissue 1978) places the Appellants at the mercy of the lawmakers of another state by delegating the powers of the Nebraska Legislature to that state. While it may be legitimately argued that some so-called retaliatory or reciprocity statutes do not give other states a voice in determining what the law of the enacting state shall be, in this case, the statute clearly has that effect. The issue was correctly summarized by Chief Justice Norman Krivosha of the Nebraska Supreme Court in his dissent:

> But the statute as it currently exists, provides that even though the director might find that the request is reasonable and that to deny it would be unreasonable, that the request is not contrary to the conservation and use of ground water in this state and, to the contrary, is in the furtherance of the conservation and use of ground water in this state, and it is not otherwise detrimental to the public welfare, but is, in fact, beneficial to the public welfare, he, nevertheless, cannot issue a permit, *solely on the basis* that the adjoining state does not permit entities, including its own citizens, to transport water into the state. (Emphasis added.)
>
> The issue here is not whether reciprocal legislation is constitutional, but whether a citizen of the State of Nebraska can be prohibited from using water on land owned by that citizen in both this state and in an adjoining state *solely on the basis* that the adjoining state would not reciprocate. (Emphasis added.)

> It occurs to me that what this statute attempts to do is to absolutely prohibit the transfer of water, without regard to its need or availability, based solely upon the acts of another state over which the citizens of this state have no control. To permit citizens of one part of the state to care for their land situated both in this state and an adjoining state because the adjoining state permits reciprocity, though it may not have water, which can be transferred, while denying that privilege to other citizens of the state solely on the basis of the action of an adjoining state and without regard to either the reasonableness of the prohibition of a particular moment or its need, strikes me as being a violation of Nebraska Constitution Article III, § 18, and Article I, § 3, and the Fifth and Fourteenth Amendments to the United States Constitution.

The Chief Justice has not missed the practical effect of the reciprocal provisional: by rejecting a permit application, not because of its reasonableness, but due to a lack of reciprocity, the statute is, in effect, unreasonable. Furthermore, the problem is not simply reciprocal legislation. The problem is whether the State of Nebraska can prevent the use of water *"solely on the basis* that the adjoining state would reciprocate." (Emphasis added.)

The error in the reasoning of the State of Nebraska is that too much importance was placed on the state's objectives to be served by the statute and that the significance of the practical effects of the statute was largely ignored. Sporhase and Moss have been denied the right to transport water simply because Colorado does not have a reciprocity statute. This occurs without regard to the real and important considerations such as whether or not the transportation of ground water would be reasonable, not contrary to the conservation and use of Nebraska's water resources and not otherwise detrimental to the public welfare.

While the statute requires the Director of the Department of Water Resources to make a determination to discover if the ground water transfer would be reasonable, not contrary to the conservation and use of ground water, and not otherwise detrimental to the public welfare, this is not done when reciprocity isn't offered. If the above evaluation was all that was required for the issuance or denial of a permit, the statute would achieve Nebraska's objectives in a reasonable, logical manner. However, in the case at bar, the permit was denied not because of a reasonable objective evaluation of the circumstances. It was denied simply because the recipient state, in this instance, Colorado, would not reciprocate.

In our view, it "borders on the frivolous" to suggest that the legislature could believe a decision based solely on reciprocity would have any connection with the state's objectives.

In reference to the assertion by Nebraska that Sporhase and Moss have suffered no deprivation, Sporhase and Moss suggest that they have been deprived in at least two instances. Art. I, § 21, of the Nebraska Constitution states that the property of no person shall be taken or damaged for public use without just compensation therefor. In our case it can certainly be argued that the regulation of ground water is damaging to the property values of Sporhase and Moss since the regulation will severely reduce the crop production and the value of the property involved. Furthermore, the assertions by the State of Nebraska that no property rights exist in ground water are certainly debatable. The fact that Nebraska allows damages for interference with existing wells and that it has established a preference system for ground water use, as set forth in Neb. Rev. Stat. § 46-613 (Reissue 1978) seems to confirm the existence of proprietary rights in ground water which is capable of being enforced through the judicial process.

Under the Equal Protection Clause of the Fourteenth Amendment and as an implicit guaranty of the Due Process Clause of the Fifth Amendment, any governmental acts which treat people in a dissimilar manner are unconstitutional. The United States Constitution requires that every state respect the equality of all persons to possess and enjoy property rights within its borders. Nebraska's disapproval of the laws of the State of Colorado cannot justify the hardship imposed upon individuals wishing to irrigate Colorado land. The discrimination caused by this statute is contrary to all notions of equality. While Nebraska has tried to show that the language of the statute creates a reasonable classification, the statute bears heavily only upon the irrigator who wants to use ground water in a state not offering reciprocity. As discussed above, reciprocity requirements are patently unreasonable and the statute singles out this irrigator without regard to the beneficial or conservation effects and without determining if it would be otherwise or detrimental to the public welfare of the state. Also, authority provides that the hindrance of the food production and business interests of Sporhase and Moss caused by this statute creates an adverse effect upon the public health and welfare and is, therefore, unconstitutional. *U. S. Brewers Association, Inc. v. State*, 192 Neb. 328, 220 N. W. 2d 544 (1974); *Gillette Dairy, Inc. v. Nebraska Dairy Products Board*, 192

Neb. 89, 219 N. W. 2d 214 (1974). It seems clear that the effect of this statute will definitely affect the Appellants' business interests and will hinder food production, thereby injuring the public welfare.

Great Atlantic and Pacific Tea Company, Inc. v. Hugh B. Cottrell, supra, which dealt with the reasonableness of a state's use of its police power, should be the harbinger of this Court's decision in the present case. As previously mentioned in the *Great Atlantic and Pacific Tea Company, Inc.* case, the Court stated that any contention that the reciprocity clause furthers the state's interests "borders on the frivolous." It appears the Court considered that aspect of the regulation to be unreasonable in the sense that it did nothing to serve the state's goals. It is equally clear that this reciprocity requirement in the Nebraska statute does nothing to serve Nebraska's interest.

Simply put, the Appellants contend that in order for a statute to be a valid exercise of the police power, the statute itself and any contingencies therein must be reasonable and advance the objectives of the legislation. This reciprocity clause meets neither of these criteria.

CONCLUSION

For the reasons stated, we respectfully urge this Court to reverse the decision of the Nebraska Supreme

Court and find that Neb. Rev. Stat. § 46-613.01 is unconstitutional.

Respectfully submitted,

JOY SPORHASE and DELMER MOSS,
Defendants-Appellants.

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NO. ________

In The

Supreme Court of the United States

October Term, 1981

JOY SPORHASE and DELMER MOSS, Individually and as Representatives of Sporhase and Moss,

Appellants,

vs.

STATE OF NEBRASKA ex rel.
Paul L. Douglas, Attorney General,

Appellees.

On Appeal from the Supreme Court of the State of Nebraska

MOTION IN THE ALTERNATIVE TO DISMISS OR TO AFFIRM AND BRIEF IN SUPPORT THEREOF

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MOTION

May it please the Court:

Appellee moves that the appeal herein taken be dismissed pursuant to Supreme Court Rule 16.1 (b) on the ground that said appeal does not present a substantial federal question.

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NO. ....

In The

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JOY SPORHASE and DELMER MOSS, Individually
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vs.

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Paul L. Douglas, Attorney General,
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On Appeal from the Supreme Court of the
State of Nebraska

MOTION IN THE ALTERNATIVE TO DISMISS OR TO AFFIRM AND BRIEF IN SUPPORT THEREOF

OPINION BELOW

This is an appeal from a decision of the Supreme Court of the State of Nebraska rejecting appellant's contention that Neb. Rev. Stat. § 46-613.01 (Reissue 1978) unconstitutionally burdens interstate commerce and denies the appellant the equal protection of the laws and due process of law in violation of the Fourteenth Amendment to the Constitution of the United States.

STATEMENT OF JURISDICTION

The jurisdictinal requisites are adequately set forth in the appellant's jurisdictional statement.

STATEMENT OF THE CASE

Neb. Rev. Stat. § 46-613.01 (Reissue 1978) provides that any person or entity intending to withdraw ground water from any well in the State of Nebraska and transport it for use in an adjoining state shall apply to the Department of Water Resources for permit to do so. For the permit to be issued, the Director of Water Resources must find: (1) that the withdrawal of ground water requested is reasonable; (2) the withdrawal of the ground water is not contrary to the conservation and use of ground water; and (3) the withdrawal of ground water is not otherwise detrimental to the public welfare; and (4) he must also be satisfied that the state into which the water is to be transported, grants reciprocal rights to withdraw and transport ground water from that state for use in the State of Nebraska. If all of these findings are in the affirmative, the Director of the Department of Water Resources must grant the permit.

The State of Nebraska through its Attorney General Paul L. Douglas, initiated this action in the Nebraska courts to enjoin the appellants from transporting ground water pumped from a well located in the State of Nebraska into the State of Colorado, until acquiring a permit to do so pursuant to Neb. Rev. Stat. § 46-613.01 (Reissue 1978).

The appellants have not applied for nor obtained a permit pursuant to Neb. Rev. Stat. § 46-613.01 (Reissue 1978) as required. The Director of the Department of Water Resources has never denied the appellants such a permit. The well operated by the appellants is registered with the Department of Water Resources as required by Neb. Rev. Stat. § 46-602 (Supp. 1981) for each well in the State of Nebraska with the exception of wells used solely for domestic purposes.

The appellants assert that restrictions upon the transportation of ground water from one state to another is contrary to the Commerce Clause of the United States Constitution. They further assert that the restrictions enacted by the Nebraska Legislature found at Neb. Rev. Stat. § 46-613.01 (Reissue 1978) deny the appellants the equal protection of law and due process of law guaranteed to them by the Fourteenth Amendment of the United States Constitution.

ARGUMENT

I.

The Nebraska statute does not impair the ability of Congress to regulate commerce among the various states by violating Article I, Section 8 of the United States Constitution.

Not every state statute which has an effect upon interstate commerce violates the constitutional provision giving Congress the power to regulate commerce among the several states. *Western and Southern Life Insurance Com-*

pany v. State Board of Equalization, — U. S. —, 101 S. Ct. 2070 (1981). *Minnesota v. Clover Leaf Creamery Company,* — U. S. —, 101 S. Ct. 715 (1981).

In *Western and Southern Life Insurance Company v. State Board of Equalization, supra,* this court recognized that Congress can exempt certain subjects from constitutional prohibitions against state regulation. The regulation of the use, allocation and distribution of a state's water resources is a matter which has been exempted by Congress and by the courts from federal pre-emption. *California v. United States,* 438 U. S. 645 (1978), Reclamation Act of 1902 at 32 Stat. 390, McCarran Amendment at 43 U. S. C. 666 (a). This court, in *California v. United States, supra* at 653, stated:

> The history of the relationship between the Federal Government and the States in the reclamation of the arid lands of the Western States is both long and involved, but through it runs the consistent thread of purposeful and continued deference to state water law by Congress.

Not only does the United States defer to the water law within each state, but it must also comply like every other citizen, with the state requirements for the use of that water which are not directly inconsistent with congressional directives. *Id.* at 678. The regulation of a state's water, like the insurance industry is generally exempt from the prohibtions of the Commerce Clause of the United States Constitution.

Additionally, water is not an article of commerce as defined by the law of the State of Nebraska. *State ex rel. Paul L. Douglas Attorney General v. Joyce Sporhase and*

Delmer Moss, 208 Neb. 703, 709, 305 N.W.2d 614, 618 (1981). The Nebraska Supreme Court stated:

> Neither the courts nor the Legislature of Nebraska have considered Nebraska ground water as an article of commerce. Free transfer and exchange of ground water in a market setting have never been permitted in this state, since the water itself is publicly owned. The public, through legislative action, may grant to private persons the right to the use of publicly owned waters for private purpose; but as the [*Olson v. City of Wahoo,* 124 Neb. 802, 248 N.W. 304 (1933)] opinion demonstrates, with its emphasis on sharing in times of shortage, the public may limit or deny the right of private parties to freely use the water when it determines that the welfare of the state and its citizens is at stake.

208 Neb. at 707-708, 305 N.W.2d at 618. Since the Nebraska ground water is not an article of commerce, it is not subject to the strictures of the Commerce Clause of the United States Constitution.

Even if the strictures of the Commerce Clause of the United States Constitution applied, the burden imposed by this statute upon commerce between the states is slight if not nonexistent. In determining the impact of a state statute upon interstate commerce, this court will look at the nature of the local interest, and whether the goals being promoted by the statute could be achieved as well with a lesser impact on interstate activities. *Minnesota v. Clover Leaf Creamery Company, supra,* 101 S. Ct. at 728 (1981). The rule regarding the criteria for determining the validity of state statutes affecting interstate commerce was stated in *Pike v. Bruce Church, Inc.,* 397 U. S. 137, 142 (1970):

> Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. . . . If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities. (Citations omitted.)

There is no question that preservation and conservation of a state's natural resources is a legitimate state concern. *Minnesota v. Clover Leaf Creamery Company, supra,* 101 S. Ct. at 727. The statute regulates evenhandedly residents as well as nonresidents of the state. All persons who desire to export water from the state must obtain the required permit and satisfy the same requirements. The effects upon interstate commerce are at the most incidental. There is no interstate commerce in water at the present time. It is not an article or a product. It is a unique natural element essential to every form of life itself, reusable again and again. The state's interest in its conservation is even more substantial than the interest of the State of Minnesota in *Minnesota v. Clover Leaf Creamery Company, supra.* 101 S. Ct. at 729. There are no alternatives which are less burdensome and achieve the same purpose. The state's interests are conservation of the water for use and furtherance of publicly approved activities. No other statutory scheme could achieve this purpose as well.

This case should be decided on the basis of *Hudson County Water Company v. McCarter,* 209 U. S. 349 (1908).

In that case, this court affirmed an injunction by the New Jersey state courts prohibiting the transportation of fresh water from the State of New Jersey to the State of New York on the basis of a state statute which read: "It shall be unlawful for any person or corporation to transport or carry, through pipes, conduits, ditches, or canals, the waters of any fresh water lake, pond, brook, creek, river, or stream of this state into any other state, for use therein." This court found no violation of the Commerce Clause of the United States Constitution. The appellants argue that this case has no application and that *City of Altus, Oklahoma v. Carr,* 255 F. Supp. 828, *cert. denied* 385 U. S. 35 (1967) controls the case at bar. The *Altus* case has no application to our situation. It was based upon the finding that water was an article of commerce within the State of Texas, relying upon a Texas statute recognizing private ownership of water. Nebraska's law is different.

The Nebraska statute, Neb. Rev. Stat. § 46-613.01 (Reissue 1978) is consistent with Commerce Clause of the United States Constitution.

II.

The Nebraska statute does not deprive the appellants of equal protection of the law protected by the Fourteenth Amendment of the United States Constitution.

Evaluation of a challenge to a state statute upon the grounds of equal protection must address two questions:

(1) Does the challenged legislation have a legitimate purpose?

(2) Was it reasonable for the lawmakers to believe that use of the challenged classification would promote that purpose?

Minnesota v. Clover Leaf Creamery Company, — U. S. —, 101 S. Ct. 715 (1981). The purposes articulated by the Legislature will be presumed to be the actual purposes of the statute unless an examination of the circumstances forces the court to conclude that they could not have been the goal of the Legislature. *Minnesota v. Clover Leaf Creamery Company, supra*, 101 S. Ct. at 723, footnote 7. In evaluating whether it was reasonable for lawmakers to believe that the use of a challenged classification would promote the legitimate state purposes, "challengers must prove that the legislative facts on which the classification is apparently based could not reasonably be conceived to be true by the government decision maker." *Minnesota v. Clover Leaf Creamery Company, supra*, 101 S. Ct. at 724. The challengers cannot prevail so long as it is evident from all considerations known to the Legislature, and those of which this court may take judicial notice, that the question was at least debatable. *Western and Southern Life Insurance Company v. State Board of Equalization, supra*, 101 S. Ct. at 2086. Equal protection is satisfied if this court concludes that the Legislature rationally could have believed that the statute could promote its objective.

The Nebraska Legislature when enacting LB 887, in 1967, stated its purpose in its finding that: "The Legislature finds, recognizes and declares that the conservation of ground water and the beneficial use thereof are essential to the well-being of this state." Neb. Rev. Stat. § 46-601 (Reissue 1978). In 1969, when the Act herein was amended by LB 1357, the Legislature made the additional statement: "The Legislature hereby recognizes and declares that it is essential to the health and welfare of the people of the State of Nebraska to conserve, protect, develop, and manage the natural resources of this state." The natural resources addressed in LB 1357 were soil and water.

Conservation and beneficial use of ground water as a natural resource for the future generations was the objective of the Nebraska Legislature when enacting the challenged statute found at Neb. Rev. Stat. § 46-613.01 (Reissue 1978). This objective is a legitimate state legislative concern.

Nebraska manages its ground water by requiring beneficial use of that water and establishing a system of preferences of use for areas in times of shortage. Article XV, section 6 of the Nebraska Constitution. The Legislature has enacted statutes providing for the strict and comprehensive regulation of ground water where the preservation and conservation of the ground water is jeopardized. Neb. Rev. Stat. §§ 46-601 through 46-674 (Reissue 1978). Permits from the Director of the Department of Water Resources are required for a municipality to transport water for domestic use. Neb. Rev. Stat. § 46-638 (Supp. 1980). Permits are required from the Director of Water Resources for the appropriation and use of surface water. Neb. Rev. Stat. §§ 46-233, *et seq.* (Reissue 1978).

By all of its extensive legislation, the State of Nebraska has attempted to ensure that water is conserved and available to all people who need and want it while discouraging its waste. This management of the state's water resource extends from the year 1889 when the Legislature first began recognizing appropriative rights and has been added to as the use and needs for the water demanded it.

The statute here can reasonably be believed to promote the purpose of conservation and beneficial use of the state's water. It requires the Director of the Department of Water Resources to evaluate an application for ground water transfer to find that it is reasonable, not contrary to the conservation and use of ground water, and is not otherwise detrimental to the public welfare. Neb. Rev. Stat. § 46-613.01 (Reissue 1978). There is no allegation by the appellants that it is unreasonable to believe that this will promote conservation and beneficial use of the water, the objectives of the act. The Department of Water Resources is also required to grant the permit "if the state in which the water is to be used grants reciprocal rights to withdraw and transport ground water from that state for use in the State of Nebraska." Neb. Rev. Stat. § 46-613.01 (Reissue 1978). The Legislature could believe that this would conserve water and promote its beneficial use by ensuring the importing state makes the best use of the imported water as well as the water in that state. This court found in *Western and Southern Life Insurance Company v. State Board of Equalization, supra,* that the mere fact that a state seeks to promote its legitimate interests by influencing the policies of other states, does not render the legitimate purpose illegitimate. In that case, this court held that a retaliatory tax on insurance companies did not violate the Equal Protection Clause of the Constitution since the tax had a legitimate state purpose and it was reasonable to believe that the tax would promote that purpose. The purpose of discouraging states from enacting discriminatory taxes is similar to the purpose of discouraging another state from enacting discriminatory water legislation. It is a fact in this case that Colorado does not permit water to be exported from that state to the State of Nebraska. Colorado Revised Statutes 37-90-136 (1973).

Appellants criticize the wisdom of the Nebraska statutes suggesting that the only requirement should be the reasonable use of the water without a reciprocity requirement. The wisdom of legislation is not the proper subject of an evaluation under the Equal Protection Clause. It is up to the legislatures not the courts to decide on the wisdom and utility of legislation. *Minnesota v. Clover Leaf Creamery Company, supra,* 101 S. Ct. at 726. If a question is debatable the act will be sustained. It is not the function of the courts to substitute their evaluation of the legislative facts for those of the Legislature. *Minnesota v. Clover Leaf Creamery Company, supra.*

The question of whether the legitimate state purposes are served by this legislation is clearly debatable and the Legislature could rationally have believed that the statute would accomplish its purposes. The statute satisfies the requirements of equal protection.

III.

The Nebraska statute does not violate the United States Constitution by depriving the appellants of liberty or property without compensation.

There is no substantial federal question that the Nebraska statute denies the appellants liberty or property without compensation.

As this court stated in *New Motor Vehicle Board v. Orrin W. Fox Company,* 439 U. S. 96 (1978): "'[T]he fact that a liberty cannot be inhibited without due process of law does not mean that it can under no circumstances be inhibited.' Zemel v. Rusk, 381 U. S. 1, 14, 14 L. Ed. 2d 179, 85 S. Ct. 1271 (1965)." *Id.* at 106. As recognized in this case, "[S]tates have power to legislate against what are found to be injurious practices in internal commercial and business affairs, so long as their laws do not run afoul of some specific federal constitutional prohibition, or of some valid federal law. . . . [T]he due process clause is [not] to be so broadly construed that the Congress and state legislatures are put in a strait jacket when they attempt to suppress business and industrial conditions which they regard as offensive to the public welfare.' Lincoln Union v. Northwestern Co., 335 U. S. 525, 536-537, 93 L. Ed. 212, 69 S. Ct. 251, 6 A. L. R. 2d 473 (1949)." *New Motor Vehicle Board v. Orrin W. Fox Company,* 439 U. S. at 107.

The question to be answered in the due process evaluation of a challenged statute is whether that statute bears a reasonable relation to the state's legitimate objectives. *Exxon Corporation v. Governor of Maryland,* 437 U. S. 117, 125 (1978).

The appellants complain that there is no rational connection between the restriction and the public interest to be protected, and that the statute operates as a taking without compensation.

We have discussed the relation of the statute to the purpose in the preceding argument. The objective is conservation and protection of the state's most valuable resource, water. This is a legitimate state objective. *Minnesota v. Clover Leaf Creamery Company, supra.* The courts will not act as a super legislature to weigh the wisdom of legislation. *Ferguson v. Skrupa,* 372 U. S. 726 (1963).

The appellants have not identified the alleged deprivation which they suffer. The states have always had and exercised the right to regulate the water within their borders. *California v. United States,* 438 U. S. 645 (1978). Nebraska has a comprehensive regulatory system for its ground and surface water, including the transportation within and without the borders of the state, and the use thereof. Neb. Rev. Stat. Chapter (Reissue 1978), *State ex rel. Paul L. Douglas Attorney General v. Joy Sporhase and Delmer Moss, supra.* Nebraska law does not permit private ownership of the water and water is not an article of commerce within Nebraska. *State of Nebraska ex rel. Paul L. Douglas Attorney General v. Joy Sporhase and Delmer Moss, supra.* The appellants cannot complain about the deprivation of liberty to do with the water that which they wish. They cannot complain of deprivation of property by restrictions upon their use of water. Neither of these rights has ever been recognized or protected within the State of Nebraska. The state's restrictions are clearly within the state's police powers and thus do not violate the due process provisions of the United States Constitution.

Even if the appellants had a property interest in the water or use thereof, the state's restrictions upon that use in accordance with a general scheme to regulate the water would not violate the due process provisions of the Constitution. *New Motor Vehicle Board v. Fox, supra.*

The Nebraska statutes can only be construed as placing a reasonable condition upon the right to transport water outside of the state. Similar conditions for use of property were approved by this court in *Hodel v. Indiana*, — U. S. —, 101 S. Ct. 2376 (1981).

The Nebraska statute does not deprive the appellants of due process of law by either the deprivation of liberty or property without compensation.

CONCLUSION

The appellants present no substantial federal question for review by this court. The Nebraska statute neither burdens interstate commerce, nor deprives the appellants of equal protection of the law nor of liberty or property without compensation. The appeal should be either dismissed or the decision of the Nebraska Supreme Court affirmed.

Respectfully submitted,

STATE OF NEBRASKA ex rel.
PAUL L. DOUGLAS, Attorney
General, Appellees,

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APPENDIX

A

Colorado Revised Statute Section 37-90-136 (1973) (EXHIBIT 14):

> Unlawful to divert water for application outside of state.—For the purpose of aiding and preserving unto the state of Colorado and all its citizens the use of all ground waters of this state, whether tributary or nontributary to a natural stream, which waters are necessary for the health and prosperity of all the citizens of the state of Colorado, and for the growth, maintenance, and general welfare of the state, it is unlawful for any person to divert, carry, or transport by ditches, canals, pipelines, conduits, or any other manner any of the ground waters of this state, as said waters are in this section defined, into any other state for use therein.

The Kansas City Southern Railway Company
Louisiana & Arkansas Railway Company
301 West 11th Street, Kansas City, Missouri 64105

PHILLIP S. BROWN
Vice President

September 15, 1981

Richard E. Traylor
ETSI EIS Project Leader
Bureau of Land Management
Office of Special Projects
555 Zang Street
3rd Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

Enclosed are the "Comments of the Kansas City Southern Railway Company on the Final ETSI Coal Slurry Pipeline Environmental Impact Statement," which we are forwarding today for arrival on the 16th, via Federal Express. The Comments were prepared by Kansas City Southern in consultation with other affected railroads and interest groups, and represent many of their views as well.

Please let us know if there is any further information we can provide beyond what is stated in the enclosed comments. We would also appreciate being kept informed of Secretary Watt's EIS decision-making timetable.

Sincerely,

Phillip S. Brown

Phillip S. Brown

PSB/maw

Enclosure

THE LAW FIRM OF
BROWN & ROADY

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September 15, 1981

Phillip S. Brown, Esquire
Vice President - Corporate Affairs
Kansas City Southern Railway Company
301 West 11th Street
Kansas City, Missouri 64105

Dear Phil:

As promised, enclosed is a copy of the Comments we filed on your behalf with the Department of the Interior concerning the E.T.S.I. Coal Slurry Pipeline Environmental Impact Statement.

With best regards.

Sincerely,

Jon T. Brown

William B. Bonvillian

JTB/WBB/maw

Enclosure

COMMENTS OF THE KANSAS CITY SOUTHERN RAILWAY COMPANY ON THE FINAL ETSI COAL SLURRY PIPELINE ENVIRONMENTAL IMPACT STATEMENT

SEPTEMBER 16, 1981

COMMENTS OF THE KANSAS CITY SOUTHERN RAILWAY COMPANY ON THE FINAL ETSI COAL SLURRY PIPELINE ENVIRONMENTAL IMPACT STATEMENT

SEPTEMBER 16, 1981

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INTRODUCTION

The Kansas City Southern Railway Company has monitored the environmental impact statement (EIS) process for the proposed ETSI Coal Slurry Pipeline from its inception. In the course of that effort, the Company participated in the scoping process, attended meetings with the Bureau of Land Management (BLM) personnel responsible for coordinating preparation of the EIS, and made every effort to work closely with the BLM as the EIS process progressed.

During the EIS process, the Company has articulated key concerns about the pipeline proposal. Those concerns encompass the following issues:

1. The accuracy of the BLM predictions of coal demand, rail carrying capacity, rail competition, and economic and other impacts.
2. The impact of the project upon groundwater supplies.
3. The impact of the project upon water quality in the Madison aquifer and in receiving surface and groundwaters.
4. The impact of the project on energy supply.
5. Certain fundamental conceptual and procedural deficiencies in the process by which the EIS was prepared.

After reviewing the Final EIS, the Company is convinced that these issues remain inadequately addressed. Accordingly, as now constituted, the Final EIS does not and cannot serve as a basis for decisionmaking by the Secretary of the Interior on either the need for the coal slurry pipeline or the source for the water that would be used in such a pipeline. For these reasons, the Company urges BLM and the Secretary to postpone any decision on the pipeline and to revise the Final EIS to include and analyze, at a minimum, newly developing data on water issues and more accurate and timely assessments of routing alterations, coal demand, rail capabilities and rail impacts.

I. THE FINAL EIS OVERSTATES COAL PRODUCTION AND COAL DEMAND, WHILE UNDERSTATING RAIL CAPABILITIES

The Final EIS (FEIS) suggests that railroads will not be able to handle all coal movements from the Powder River Basin and will not be adversely affected by construction of the ETSI coal slurry pipeline. These conclusions are based upon fundamentally incorrect assumptions.

A. Coal Demand Is Overstated.

The FEIS justifies coal slurry pipeline construction with the assertion that federally-mandated coal conversion creates a major need for coal in the mid-South. The FEIS states:

> The need for coal as a fuel for power operation results from regulatory requirements placed upon existing power plants to convert to coal.... Thus the regulation requiring existing power plants to convert to coal and the [corresponding] planned construction of new facilities projects a substantial increased need for low-sulfur coal in Oklahoma, Arkansas, and Louisiana. FEIS at p. 2-2.

However, this assertion is fundamentally flawed since Congress recently repealed the sections of the Powerplant and Industrial Fuel Use Act of 1978 (P.L. 95-620, Section 301) that, in effect, mandated conversion to coal from natural gas.

P.L. 97-35, H.R. 3982, House Report 97-208, Title 10. The repeal resulted largely from the greatly improved natural gas supply situation and deregulated gas pricing policies which assure long-term continued availability of natural gas.

Without mandated coal conversion, the utilities in the three affected states will undoubtedly undertake a more balanced fuels policy, with correspondingly reduced future demand for coal. The repeal mandates a re-analysis of the FEIS.

Aside from this recent Congressional action, the figures used in the FEIS to project coal demand are significantly overstated and based on outdated estimates. The FEIS assumes that because production capability is present, demand will follow. The opposite is the case, and the FEIS fails to adequately review coal demand.

For example, the 1979 Department of the Interior Secretarial Issue Document for the Federal Coal Management Program concluded that Department of Energy western coal demand figures, relied on, in part, by the FEIS, have been overstated for the following reasons (partial listing):

- a new recognition of the size and importance of Mexican oil and gas reserves;
- a new understanding of the amount of oil and gas potential in the overthrust belt in the western United States;
- the greatly improved supply situation for natural gas due to the Natural Gas Policy Act of 1978; and
- overly optimistic expectations for synthetic fuels and industrial users of coal.

However, the EIS contains no review of these factors, of their influence on coal demand levels and on whether a pipeline is necessary. The EIS also fails to fully utilize more recent government coal demand figures.

Further, the FEIS fails to analyze in any detail projections for coal demand prepared by railroads, which suggest considerably less demand than projected in the FEIS. It also fails to analyze the generally weakening demand picture for electricity, and the effect of this trend on coal demand.

There are numerous external signs that FEIS demand figures are greatly overstated. The continuing oil surplus, the continuing strength of U.S. currency against foreign currency, and the continuing world-wide economic slump, are all leading to an apparent softening of demand for U.S. export coal. There are indications that mine development is slowing in the Powder River Basin, with mining firms stretching out their development timetables. In addition, there are indications that the Departments of Energy and Interior plan to roll back deadlines for coal lease development on Federal lands.

The overprojections in demand are reflected in part by the failure of ETSI to secure firm commitments from utilities to transport coal. While five power plants have tendered "letters of intent" to ETSI (FEIS, Table 1-1, at p. 1-4), these letters cannot be considered binding. Assuming that the letters of intent represent commitments, the coal requirements of the utilities providing these letters would be 10.5 million tons less than the annual coal tonnage projected for coal pipeline operation. The failure of ETSI to obtain firm commitments and the failure of even the mere letters of intent to utilize the pipeline capacity underscore the softness of coal demand.

In summary, the FEIS is fundamentally flawed as it overstates coal demand. Consequently, the report's conclusions are inaccurate regarding: (1) the capacity of the railroad industry to haul Powder River Basin coal, and (2) the economic effect coal slurry pipeline construction will have on the railroad industry. Because demand projections are overestimated, the social effect of railroad traffic on the region is greatly exagerated.

Therefore, the FEIS must be revised to analyze the reduced demand that will result from the repeal of the provisions in the Fuel Use Act that, in effect, had mandated coal conversion. Further, it should evaluate more realistic coal demand figures prepared by other government agencies and by the railroad industry, and should review reduced electricity use trends. Finally, the FEIS must be revised to consider whether projected coal demand is realistic in light of increased recognition, development, and use of domestic oil, gas, and synfuels.

B. Rail Capabilities Are Understated.

The FEIS concludes that "substantial upgrading" may be necessary if railroads are to move Powder River Basin coal. FEIS, Final Technical Report, No-Action Alternative, pp. 5, 11, 15. The report thus questions railroad capacity, suggesting a need for a coal pipeline.

However, the FEIS understates railroad capacity. While the report acknowledges that the Chicago and Northwestern (CNW) is attempting to gain access to the Powder River Basin, it fails to address the capacity of the CNW, stating: "because the [CNW] project's future is still uncertain and subject to funding approval, it is not included in the analysis of impacts for the no-action all-rail alternative." FEIS, at p. 1-76.

However, the Interstate Commerce Commission (ICC) has recently given final approval to CNW access to the Powder River Basin. ICC Docket Case Nos. Finance 28934, 29066, 29169, 29332, 29333, 29398 (July 17, 24, 1981). This new route will offer a joint CNW-Union Pacific alternate route for coal traffic from the Powder River Basin to Kansas City, with numerous alternative connecting rail routes available from that point. Funding from private sources appears likely, obviating any need for federal loan guarantee approval. Thus, there is a very real likelihood that this alternative route will materialize. This alternative must be fully evaluated by the FEIS.

The FEIS also ignores an additional Union Pacific alternative rail route to Kansas City, and a Milwaukee Railroad route, both adjacent to the Powder River Basin. Those routes are already handling Powder River Basin coal traffic that the FEIS concluded was limited to the Burlington Northern. See, Comments of the Union Pacific Railroad on the Draft EIS, reprinted in FEIS at p. 1-81.

In addition to the CNW and Union Pacific alternative routes, there are three other Burlington Northern routes which the FEIS failed to review. Finally, the Tongue River Railroad is also seeking to provide access by 1985, and this route should be reviewed in the FEIS. See, ICC Docket No. AB-7 (Sub. No. 97F).

Moreover, the FEIS simply overlooks existing railroad conditions in Wyoming and Nebraska. For example, the Burlington Northern Railroad has publicly testified that it currently has substantial excess coal carrying capacity in those markets that is not being utilized due to softness in the coal market. Statement of R. C. Grayson, President, Burlington Northern, (delivered by Senior Vice President John Hertog) before the House Interior Committee, at p. 5 (July 30, 1981).

The performance of the railroad industry to date makes clear that it has ample capability to handle all potential coal traffic. For example, the Burlington Northern increased its coal traffic by nearly 500 percent between 1970 and 1980, incurring capital expenditures during that period of $2.4 billion, equipment lease costs of $.73 billion and plant maintenance costs of $2.4 billion. The railroad contemplates capital expenditures of $2.3 billion during the 1981-84 period. Id., at 27-28. As another example, the Kansas City Southern Railway, a 1,500 mile system compared to the Burlington Northern's 30,000, invested $93 million in track and equipment between 1975 and 1980, largely to handle coal traffic, and plans comparable investments over the next five years. Statement of Thomas S. Carter, President, Kansas City Southern Railway before the Transportation Subcommittee of the House Public Works Committee, at p. 4, (Nov. 27, 1979).

Concerning the railroad industry in general, railroads in the last week of August moved 139,877 cars carrying an estimated 12,588,930 tons of coal, an all-time record for a single week. This was performed without strain on the rail system. The railroad industry has made massive investments in capital and maintenance over the last ten years to handle accelerated coal traffic, installing more than 70,000 new and rebuilt coal hopper cars in the last five years, bringing a total of 350,000 such cars into service. Over half of the rail-moved coal is transported in unit trains systems. In the two years between 1978 and 1980, rail coal traffic increased 32% and there is still ample excess equipment and plant capacity in the industry to handle future growth.

In summary, the FEIS has erred in estimating railroad capacity by failing to review alternative railroad routings, failing to account for existing over-capacity in equipment, and failing to review the depth of western rail industry financing capability. Consequently, since railroad capacity is significantly understated in the FEIS, the conclusion concerning the need for a coal slurry pipeline demands reexamination. Conclusions in the FEIS regarding the social impact of additional railroad traffic in the region are also highly questionable, because the FEIS has failed to account for the additional rail routings noted above, which would greatly mitigate the effect of such social problems as grade-crossing congestion, accidents, and noise.

C. The Economic Impact On Railroads Is Not Analyzed.

The FEIS concludes simplistically that because its coal demand estimates are high, the railroad industry will not be affected by loss of future revenue from the 37.4 million tons of coal to be transported annually by the proposed pipeline. FEIS, at p. 6-97. It should be noted initially that, as discussed in sections A and B above, since the FEIS' assumptions about coal demand and production in the Powder River Basin are grossly optimistic, the loss of 37.4 million tons of coal traffic would have a proportionately larger impact on the railroad industry. Further, since a slurry pipeline would have to start operation at close to full capacity, most of the coal tonnage it would transport would have to come from existing production, not from future production. Existing production would have to be directly diverted from the railroads.

Moreover, the FEIS fails to consider that railroads have already invested heavily to increase their capacity to transport coal, especially in the West where the number of tons of coal originated has more than tripled since 1970. Revenues are needed to pay for the major capital investments creating increased transport capacity, and railroads must be compensated for high fixed costs. If the traffic base upon which railroads depend for revenues necessary to meet these costs shrinks, then revenues will be correspondingly depleted. The Kansas City Southern, for example, has testified that if the ETSI project is not built, the railroad potentially could handle annually 11.25 million tons of Wyoming coal in its market areas of Louisiana, Oklahoma and Arkansas, subject to vigorous competition from other railroads operating in the area. If ETSI implements its project, this would leave only approximately 3.5 million tons to be handled by the competing rail systems in the Kansas City Southern territory in those states.

Consequently, the railroads will need all possible revenue simply to maintain their economic position. While the FEIS has concluded that the pipeline would have no effect on railroads, the study by Congress' Office of Technology Assessment has concluded that coal pipeline construction would have a major effect on rail revenues. U.S. Congress, Office of Technology Assessment, A Technology Assessment of Coal Slurry Pipelines, March 1978, p. 75; updated September 1980 (see Summary). However, the FEIS fails to address these impacts.

The FEIS also fails to assess the effect the loss of coal revenue would have on non-coal rail shippers and coal shippers outside the ETSI market who would have to bear corresponding rate increases since fixed costs would have to be spread over a smaller traffic base. The limitations on future growth due to the loss of water to the region, particularly on agricultural growth, are likewise not analyzed, and could have serious impact on future rail revenues.

In summary, the FEIS' conclusion that there would be no economic impact on railroads from pipeline construction is invalid and the FEIS must be revised to consider these issues.

D. Competition Issues Are Not Adequately Reviewed.

There is an underlying assumption throughout the FEIS that there is a lack of transportation competition in the Powder River Basin and that the addition of coal slurry pipeline competition will therefore result in cost savings for electric utility customers in ETSI marketing areas. This assumption is incorrect for two reasons.

First, as discussed above, there are three rail carriers currently serving the Powder River Basin area, Burlington Northern, Union Pacific, and the Milwaukee, with a fourth likely to join them (Chicago and Northwestern), and the possibility of a fifth (Tongue River). In addition, outside the immediate Powder River Basin area, there is a multitude of rail routings and a large number of carriers able to handle portions of the coal movements from the area. Further constraints on Powder River Basin rail coal rates result from barge-rail competition, from competition among different coal-production regions, and from competition among different forms of energy. Thus, there likely will be a number of factors which will limit rail rates.

Second, as addressed in comments to the Draft EIS, the supposed "competition" represented by the ETSI pipeline may well lead to higher consumer electric rates. FEIS, at p. I-73. The type of long-term contract ETSI has been offering utilities would require a commitment to pay the construction cost of the pipeline annually for many years, plus all the costs of rupture, environmental compliance, strikes, coal supply interruption, and water supply interruption. These are clearly substantial risks and they would be born by utility customers. Moreover, because the contracts would be long-term (30 years), they would preclude utilities from shifting to other energy sources, other coal sources, or other less expensive means of transport, with corresponding cost to customers. The long-term nature of the contracts could also limit the contracting utilities' credit, creating substantial and additional expense to customers for financing necessary improvements, such as new plants and transmission and distribution facilities. Outside the ETSI market area, utilities relying on rail coal delivery would face increased rail rates to the extent that the ETSI project reduces rail revenues. These factors must be considered and evaluated in the FEIS.

In summary, the FEIS fails to properly or thoroughly analyze the issues of competition.

II. THE FINAL EIS SUFFERS FROM AN ACUTE LACK OF CRITICAL GROUNDWATER DATA

A. General Comments.

Substantial concern has been raised by numerous individuals and organizations regarding the impact of the ETSI system on the groundwater resources of a four-state region. That concern has not been dispelled by the FEIS or the responses to the many comments on the Draft EIS. Many questions, some of which will be raised in these comments, remain to be answered. The FEIS underscores the fact that insufficient data exist to permit the Secretary to make a reasoned and objective decision concerning whether the project should proceed.

A number of highly qualified commenters on the Draft EIS raised serious questions concerning the existing data base, the impact assessment models developed from that data base, the conclusions regarding impacts derived from the models, and the assessments of significance given to the impacts. These questions go beyond the level of technical disagreements among qualified professionals. Indeed, the FEIS concurs in numerous instances that the data base is very scant. See, e.g., FEIS at pp. 2, 4-9. Given that limited data base, the BLM had little alternative but to proceed through a series of assumptions in order to reach an impact assessment for the proposal.

However, the accuracy of the impact assessment is dependent upon the accuracy of the data base, the validity of the models, and the assessment of significance by the BLM. Relatively small errors at any level of assumptions will result in severe distortions in the conclusions reached in the FEIS. Sufficient lack of data exist to preclude approval of a proposal whose potential impacts are so vast. Indeed, under existing CEQ regulations BLM is required to develop data of critical importance unless the cost of that data development is exorbitant. CEQ Regulation at § 1502.22(A).

Furthermore, the FEIS fails to take account of data on water issues developed by other federal agencies, including the U.S. Geological Survey (USGS), suggesting that the effects of the ETSI system upon regional ground and water resources will be far greater than stated in the FEIS. The FEIS also incorrectly concludes that questions concerning State, Federal, and Indian water rights are beyond the scope of the FEIS. For these reasons, the FEIS cannot be considered a detailed examination of the environmental impacts of the ETSI proposal within the meaning of NEPA. These problems suggest that the Secretary should not make a final decision concerning the ETSI proposal until further study is completed and made available for examination and comment by interested parties.

Aside from these general comments, a number of more specific issues require attention.

B. Structural Issues Are Not Adequately Reviewed.

The FEIS, in dealing with water availability issues, fails to fully analyze the structural questions affecting the Madison Formation. For example, the FEIS states that:

> Historic changes in the Madison Potentiometric Surface could not be accurately determined from existing information because of a limited data base. FEIS, at p. 3-25.

This admission, among many others, underscores the lack of an adequate data base for calculating future impacts on the basis of observed scientific fact.

The FEIS also indicates that the 6-layer conceptual model of the Madison aquifer system was translated into a 5-layer numerical model. FEIS, at p. 4-4. The Minnelusa confining unit was not a part of the numerical model, yet the FEIS does not describe the reasons for this omission.

These inadequacies underscore the lack of a factual benchmark for testing the accuracy of the models developed for forecasting impacts. Accordingly, more structural data on the Madison and its relation to other formations is essential before the FEIS can satisfy NEPA.

C. Drawdown and Water Level Issues Are Not Adequately Evaluated.

The FEIS fails to adequately review a series of important water drawdown and water level issues. Concerning the likelihood of water drawdowns, the FEIS states that:

> The best estimates of the aquifer characteristics were used as input parameters for calculating the Madison aquifer drawdowns presented in this EIS. Data on these parameter estimates [i.e. aquifer characteristics]... were very limited. Consequently, uncertainty is associated with each of these parameter estimates. FEIS, at p. 4-9 (emphasis added.)

The EIS then describes the use of the "Monte Carlo technique" for calculating the likelihood of drawdowns. This probability analysis, however, can be no better than the data base used to develop calculated drawdown levels since the probability distributions were applied to the model parameters which, in turn, were derived from an extremely limited data base. Thus this technique again underscores the critical need for additional data on groundwater impacts.

Concerning drawdowns, the FEIS further states that:

> only at the Madison wells located near Edgemont, South Dakota, would drawdowns in the Madison potentiometric surface exceed 25 feet. FEIS, at p. 4-13.

This statement is at best misleading, and may be factually incorrect. It apparently intends to say that the only presently existing Madison wells which would be affected by a drawdown of 25 feet or more are those near Edgemont, South Dakota. Other commentators (including USGS) suggest that even this more limited statement is not correct and that drawdowns generally will be far more extensive.

The FEIS also states that:

> it is impossible to predict what the possible impacts may be on the municipal water supply districts or local governments. FEIS at p. 4-13.

Nevertheless, the EIS concludes that the only impact will be the installation of pumps to alleviate the ground water drawdowns.

These statements reflect both the lack of a sufficient decisionmaking data base, and an inattention to the problems associated with the loss of over 300 billion gallons of water from a finite underground reservoir. Equally important, they emphasize an area of alternative assessment wholly absent from the EIS: the alternative uses of water from the Madison formation, and the costs and environmental impacts associated with such alternative uses both with and without the ETSI system.

The possibility of drawdown exceedance is also inadequately reviewed. The FEIS states that:

> The calculated drawdowns shown in the Draft EIS have less than a 50% chance of being exceeded if the ETSI withdrawals occur.... Therefore, these impacts represent a worst-case analysis. FEIS at p. 6-17.

This statement is misleading. Simply because an event has a probability of less than 50% does not mean that it represents the "worst-case" analysis. The FEIS admits that the actual data base is scant; accordingly, any models developed from such a data base are equally suspect. Thus, even if a "worst-case" analysis were simply a less-than-50% probability study, the data here would be insufficient to support the conclusions. However, it is beyond question that a cataclysmic event with a probability factor of 25% is much more accurately a "worst case" analysis than a moderate event with a probability of 49%. The FEIS should address a true "worst-case" analysis using a more realistic definition of the term. Without such an analysis the Secretary and the public cannot be fully apprised of the potential impacts of the ETSI proposals.

Aside from these problems with drawdown data, there are also problems with the FEIS discussion of water level issues. As the most important example, water recharge estimates in the FEIS encompass such a broad range that they underscore the weakness of recharge data on which the report relies and the need for further review. As another example, figure 4-1 on page 4-3 of the Well-Field Hydrology Final Technical Report uses preliminary data from USGS studies in predicting the calculated water declines over 50 years from the Niobrara well field. The comparable graphic illustration in the FEIS, using non-USGS data, appears at page 4-15. The differences in the projected water declines using the two separate sets of data are striking.

Using the USGS data, the area encompassed by the 25-foot decline demarcation extends far into Montana, and the 50-foot line extends nearly to the Montana state line. Moreover, it does not appear that Figure 4-1 represents a cumulative analysis. This drawdown prediction contrasts sharply with the one depicted in the FEIS, where the area of 25-foot decline extends only over a 7-county area in Wyoming, South Dakota, and Nebraska. The dramatic differences between the two illustrations underscores the variability of the predictions using different models, as well as the differences in baseline data, used in the FEIS.

As another example, "Plan 6," a model used to evaluate water level impacts using newly discovered data regarding aquifer characteristics, shows a much broader decline in water levels for dual-field pumping than that shown in "Plan 5", a model using old data. FEIS, at p. 5-8. It is not stated in the FEIS whether the new data were used in the analysis of cumulative impacts associated with ETSI pumping solely from the Niobrara well field. Since new data have so obviously changed the most recent groundwater impact analysis, as reflected in Plan 6, it would seem important to await the results of pending USGS studies before proceeding with the ETSI project. A secondary point is that reasons for selecting particular well fields over others (for example, Niobrara fields verses Crook

County fields) are not adequately explained, particularly in light of data in the FEIS on varying drawdown impacts.

A critical factor in determining the potential water level impacts of the ETSI system is the transmissivity coefficient for the Madison Formation. However, there appears to be disagreement between the USGS and the FEIS on this crucial factor. FEIS, at pp. 6-23, 6-24. The FEIS does not adequately explain these differences.

These drawdown and water level problems could be exacerbated because the coal slurry pipeline may require a larger proportion of water to coal than estimated in the FEIS. In addition, testing and "flushing" of the pipeline and correction of operational problems may require frequent and substantial additional amounts of water beyond amounts estimated in the FEIS. The proposed width of the pipeline has been altered in the past by ETSI, and may well be increased again, with corresponding effect on water requirements. Evaporation from holding ponds likewise could require further water not fully estimated in the FEIS. These issues suggest further review.

In summary, there appear to be weaknesses in the drawdown and water level analysis in the FEIS to the extent that a thorough review is called for.

D. Effect On Surface Water Environment Is Inadequately Analyzed.

The effect of ETSI pumping from the Madison Formation on the surface water environment is not adequately assessed. For example, the FEIS notes:

> Reduction in spring and stream flow in South Dakota as a result of use of Madison Formation water could significantly affect the aquatic resources of the Black Hills region. The magnitude of the impact cannot be determined with the available data. FEIS, at p. 9.

This conclusion requires further review.

The comment and response relating to the "significance criteria" adopted by BLM for ground and surface water impacts are illustrative of a fundamental failure of the FEIS. Nowhere in the document does there appear an analysis of the biological or environmental reasons for choosing these criteria. Rather, the criteria seem to be chosen on the basis of physical and legal problems, such as the necessity for pumping ground water and the possible interference with surface water rights. Such criteria should be chosen for the purposes found in NEPA, rather than for extraneous or secondary considerations.

These points underscore the need for a further review in the FEIS of impacts on the surface water environment.

III. THE FINAL EIS INADEQUATELY ADDRESSES THE IMPACTS OF THE PROJECT ON WATER QUALITY IN THE MADISON AQUIFER AND IN RECEIVING SURFACE AND GROUNDWATERS

The FEIS offers little or no analysis of project water quality impacts in two critical areas: the Madison Aquifer, and receiving surface and groundwaters in Oklahoma, Arkansas, and Louisiana. Under CEQ Regulations, this material should have been developed. CEQ Reg. at § 1502.22 A.

A. Water Quality Impacts Upon The Madison Aquifer Are Not Addressed.

The FEIS fails to analyze two serious issues relating to the impact of the project upon Madison Aquifer water quality: (1) whether the project will trigger salt contamination of the aquifer, and (2) whether the project will trigger contamination of the eastern, cleaner portion of the aquifer by the western, dirtier portion of the aquifer.

1. Salt Contamination From The Minnelusa Formation.

The FEIS fails to analyze the probability that pumping from the Madison Formation might trigger significant salt contamination. The possibility that such pumping might prompt leakage into the Madison Aquifer of salts from the overlying Minnelusa Formation was raised in comments on the Draft EIS by the Environmental Protection Agency (EPA). EPA stated:

> We are very concerned with the possibility of contamination of the Madison Aquifer as a result of leakage from upper aquifers with high salt concentrations. The potential for low quality water to contaminate the wellfields is an important issue to evaluate both from its impact on groundwater and treatment needed for dewatering plant effluent. FEIS at p. I-9. See also FEIS at p. I-10.

The BLM provides no response to this comment in the FEIS. The portion of Chapter Six which addresses EPA's other water quality comments simply omits this issue. See pp. 6-51 - 6-55. This failure to address a potential water quality impact which the EPA considers critical should be corrected before any reasoned decision on the project can occur.

2. Contamination From The Western Portions Of The Madison Aquifer.

The FEIS inadequately responds to a second concern raised by EPA: that poor quality water from the western part of the

Madison Aquifer will pass through the Fanny Peak monocline and contaminate the eastern part of the aquifer. The EPA stated:

> [T]here is some scientific controversy regarding the permeability of the [Fanny Peak] monocline. If this supposed "impervious" structure does have leakage through it, and water moves from the west of the well-field where water quality is extremely poor, water quality impacts could be severe. FEIS, at p. I-10.

The BLM response to this comment from EPA stated merely that the existence of differing water quality on either side of the Fanny Peak monocline "along with other hydrogeologic data" -- which was left unspecified -- suggested that the monocline is relatively impermeable. FEIS, at p. 6-52. This response indicates that the BLM developed no new data on the crucial question whether the monocline will retard contamination of the eastern part of the Madison Aquifer. Such a failure is unacceptable in the face of the potential damage that would attend contamination, and in light of CEQ regulations. Therefore, the FEIS should be revised or supplemented by additional data which attempts to resolve the existing controversy over this issue.

B. The Impacts Of Project Effluent On Receiving Surface And Ground Waters Are Not Adequately Addressed

Despite a series of comments on the Draft EIS which sought additional information, the FEIS continues to give inadequate treatment to the question of how the 6.5 billion gallons of water per year that will be slurried through the pipeline will be discharged or to the resulting impacts from the proposed discharge. The FEIS simply suggests that the spent slurry water will either be discharged directly into receiving waters or transported to power plants for usage therein.

The inadequacies cover four separate areas: (1) a failure to analyze in detail the components of the coal slurry pipeline effluent; (2) a failure to analyze in detail the methods by which that water would be treated before being discharged into receiving waters; (3) a failure to analyze the composition and impacts of the discharge of hydrostatic test water; and (4) a failure to address the impact of the sheer volume of water to be discharged into the receiving waters.

1. Toxics, Metals, And Other Components In The Project Water.

There is no indication in the FEIS or in the Final Technical Report on Surface Water Quality that any analysis of potential slurry effluent was undertaken which included an examination of chemicals or other components to be injected in order to facilitate passage through the pipeline or to retard corrosion. Experience at other representative pipelines indicates that the injection of chemicals or other components is a necessary part of the operation and maintenance of pipelines. Therefore, the FEIS must be revised to include a discussion of the kinds of chemicals and components that will be injected into the pipeline and their effect on the slurry, on the pipeline itself, and on the environment after discharge.

2. Treatment Requirements

The FEIS indicates without elaboration that treatment of the effluent to reduce biochemical oxygen demand would result in sufficient reduction in metals to satisfy water quality standards. FEIS, at p. 6-182. This conclusion is unsupported by data or analysis, and should be buttressed by both before a rational assessment of the needed level and kind of treatment can be made.

Further, as suggested above, there is an inadequate discussion in the FEIS of the nature of treatment required for chemicals or other components injected into the slurry, assuming the effluent is to be discharged into receiving waters. Illustrative of this void is the failure of the FEIS to address studies which conclude that treatment of spent water from coal-slurry pipelines could produce possible carcinogens. Moreover, if such carcinogens or other hazardous substances are produced, the FEIS fails to address whether permits will be required under the Resource Conservation and Recovery Act. Another issue explored only briefly concerns the relatively high concentrations of radioactive elements in some Madison Formation water, and how to deal with this problem at the discharge stage.

In addition, both the FEIS and the Final Technical Report are silent on the potential need for treatment of the effluent before it is cycled through power plants, assuming this alternative is selected. The FEIS simply states:

> The eventual use of the coal or water to be transported is not part of the proposed action. Therefore, impacts related to power plant use of the dewatering plant effluent is beyond the scope of this impact analysis and is the responsibility of the involved power plants. FEIS, at p. 6-189.

Thus, the FEIS fails to address whether spent slurry water will have to be treated prior to usage by power plants. There is also no discussion of the proposed use of the water by power plants, including whether spent slurry water is usable within the plants. Such discussion should address whether power plants will have to "retrofit" to use coal slurry water and whether power plants will be able to use all the spent water. And there is no discussion of whether such water will have to be treated after usage within power plants, assuming that overflow water will have to be discharged into receiving waters.

Finally, the FEIS fails to address the issue whether power plants will suffer problems with corrosion, scaling, and other effluent impacts. In so doing, it ignores the impacts on receiving waters from the effluent that is cycled through the power plants before discharge. Therefore, the FEIS is deficient in coverage: it attempts in some fashion to address the impacts on receiving waters of effluent that is never cycled through power plants, but it never analyzes the impacts on those streams of effluent that first passes through power plants. This analytical void is critical, and should be corrected before a true picture of project impacts can emerge.

3. Discharge Of Hydrostatic Test Water.

The FEIS and the Final Technical Report on Surface Water Quality identify several potential adverse impacts from the discharge of hydrostatic test water, but neither document analyzes those impacts. To the contrary, the Final Technical Report devotes barely three pages to its discussion of hydrostatic water test discharge impacts, and succeeds only in raising the spectre of a series of massive discharges of oily, contaminated water into receiving streams which could "temporarily impair" municipal water supplies and aquatic habitat. FTR, at p. 84-86.

Given the dramatic water quality impacts which would attend the discharge of hydrostatic test water, the FEIS should be revised to include specific details concerning at least the following issues:

(1) the precise discharge points for the test water;

(2) the precise make-up of the discharged test water;

(3) the impact of untreated test water on receiving waters;

(4) the plans and methods for treating the discharged test water before it reaches receiving streams or leaches into groundwater in the proposed discharge area.

4. Discharge of Large Volumes of Effluent.

Data presented in Table 1-25 of the FEIS shows that several rivers would be subject to a potentially significant impact because of the sheer volume of releases from the pipeline. For example, the Arkansas River at a site 29 miles downstream from Ponca City, Oklahoma would receive over one billion gallons of discharge water annually. The EIS provides no analysis of impacts of such large discharges. This failure should be corrected.

C. Pipeline Spills/Ruptures Are Not Adequately Reviewed.

There is no discussion of proposed response and remedial measures in the event there is a pipeline spill, leak, or rupture. Further, the FEIS fails to discuss methods to detect pipeline leaks. There is also no discussion of the problems caused by and methods to prevent possible cessation of pipeline flow due to plugging by solids. Finally, the discussion is inadequate of the impacts a spill or rupture may have on the environment, including vegetation, soil, surface waters, and groundwaters.

D. Pipeline Construction Is Not Adequately Discussed.

While the FEIS discusses the trenching activities associated with pipeline construction in streams, rivers and wetlands, there is no discussion of how much material will be dredged from these waters and where the dredged spoil will be discharged. Further, there is an inadequate discussion of the erosion effects that may result from trenching activities. There is also an inadequate discussion of whether the proposed construction will cross "sink" areas and, if so, potential impacts that may occur.

Finally, the FEIS does not contain on-site evaluations of the numerous stream crossings necessitated by the ETSI system. The decision not to conduct on-site investigations but to vary the location of the proposed pipeline within a one-mile corridor for purposes of the EIS review ignores the requirements of NEPA. Moreover, reliance on USGS gauging stations to determine water quality parameters, some of which are 200 miles away from proposed discharge sites, is totally inadequate. The social and economic effects of construction and the disposition of slurry facilities at the end of the project's useful life are also not fully reviewed.

IV. THE FINAL EIS FAILS TO ADEQUATELY ASSESS THE ENERGY AND OTHER ENVIRONMENTAL IMPACTS OF THE PIPELINE

A. Energy Impacts Are Not Adequately Addressed.

A number of energy effects of the proposed pipeline are not adequately discussed. For example, the proposed dewatering plants are designed to separate spent slurry water from damp coal. The coal is then "dried" before use by power plants. However, the FEIS fails to address how the process of drying is to occur. The FEIS also fails to discuss the energy sources that will be needed to dry damp coal, and does not address how much energy will be consumed during such a process. This factor likely makes the rail transportation alternative significantly more energy efficient. There is also no discussion of the potential problems of wet scrubber corrosion that may be caused by the high chloride content of damp coal, even if dried.

In addition, the FEIS inadequately discusses the impact of the proposed pipeline on oil fields. The FEIS should address whether the construction of the pipeline along the proposed route, including usage of existing ground and surface waters, will adversely affect oil and gas sources. That is, the FEIS must discuss whether the construction of the pipeline and its water use will either prohibit access to or development of other energy sources, including oil, gas and synfuels, or affect the geology of the region and thereby adversely impact potential sources of energy.

Moreover, the total consumption of energy must be addressed more specifically for all proposed alternatives. Without such a review, the FEIS cannot serve as an adequate basis for decisionmaking by the Secretary of the Interior.

B. Other Environmental Impacts.

1. Clean Air Act.

The FEIS fails to adequately discuss whether permits will be required pursuant to the Clean Air Act. Assuming such permits are needed, the FEIS should discuss the permitting procedures and provide a timetable for obtaining such permits.

2. Power Plants.

There is reference in the FEIS that one of the potential power plants is "under construction with retrofit capability for coal slurry system." FEIS, Table 1-1, p. 1-4. However, the FEIS fails to address what "retrofit capability" means or requires, particularly for existing plants. The FEIS should discuss this issue in detail.

3. Floodplains.

The FEIS notes that certain slurry pump stations and dewatering plants may have to be located within potential 100-year floodplains. FEIS, at p. 3-39. However, the FEIS fails to adequately address the consequences of locating facilities within such floodplains, or the impacts that may result from construction activities in these areas. Further, there is no discussion of whether the facilities that will be located in flood plains will have to be subject to special construction design. The suggestion that no changes will occur in bottom contours as a result of pipeline construction is questionable since erosion patterns will be affected by the presence of a pipeline.

4. Transportation Networks.

The discussion of transportation networks in the FEIS is inadequate. For example, the FEIS notes that the principal means of access to preparation plants will be a two-lane highway that is presently under heavy use and will be subject to further reconstruction in the future. FEIS, at pp. 3-90, 3-96. However, the FEIS fails to address potential impacts on existing users and on the condition of the road itself as a result of the proposed use of this road. Clearly, NEPA is designed to address all potential impacts from a proposed project, including impacts on existing uses.

5. Fisheries and Wildlife Resources.

The discussion of the impacts of the proposed project on wildlife and fisheries resources is inadequate. See, e.g., FEIS, at pp. 4-64, 4-66. For example, the FEIS must address impacts on all streams and rivers rather then restricting its discussion to those surface waters where there exists adequate flow data. The lack of flow data does not relieve BLM from the requirement to discuss potential impacts on wildlife and fisheries resources.

6. Slurry Alternatives.

The FEIS fails to adequately discuss the use of an energy slurry as an alternative to a water slurry. An energy slurry could consist of hydrocarbon solids and liquids that require less water in their processing, take advantage of economical pipeline transportation, and may eliminate the need for a dewatering process. The possibility of using liquid CO_2 (which could be derived from burning amounts of the coal to be transported or from future nearby synfuel projects) is likewise not adequately explored. See, Arthur D. Little, Inc., "Non-Water Slurry Pipeline - Potential Technologies" March 1980. The FEIS also fails to fully explore the use of saline groundwater as a full or partial slurry component, which use would reduce some of the regional water loss problems. While use of wastewater as a slurry component is discussed, wastewater sources are not fully reviewed. The possibility of reducing the coal-to-water slurry ratio is also not thoroughly evaluated. Finally, the FEIS fails to address whether power plants could burn the slurry rather than separating water from coal. This alternative could relieve water quality problems and eliminate the need for dewatering plants. The failure to address these alternatives is a significant defect in the FEIS.

V. ANALYSIS OF OTHER ALTERNATIVES IS DEFICIENT

None of the alternative routes or alternative water sources listed in the FEIS are given adequate detailed consideration, as required by NEPA and CEQ regulations. Should the Secretary of Interior consider selecting one of the alternative routings or water sources noted in the FEIS, the entire document would require thorough revision and a new public hearing and comment process. Two of the most serious examples are discussed below.

A. The Colorado Alternative.

As an initial matter, the general deficiencies in the FEIS which are identified in these comments apply to the alternatives as well as to the proposed action. For example, the FEIS is deficient in scope for failing to assess adequately the disposal of slurried water in Oklahoma, Arkansas, and Louisiana, and that deficiency exists regardless whether the preferred route or the Colorado route is chosen.

In addition, the discussion afforded the Colorado alternative itself does not satisfy the standards contained both in NEPA and in the NEPA regulations promulgated by the Council on Environmental Quality. The CEQ regulations emphasize that the duty to analyze alternatives is "the heart of the environmental impact statement," and require the BLM to "rigorously explore and objectively evaluate" all reasonable alternatives. CEQ regulations at § 1502.14.

Despite this requirement, the FEIS allots less than fifteen pages to the Colorado alternative, and devotes little of the space allotted to detailed and rigorous analysis. To the contrary, in most instances where the discussion does identify a potential significant action related to the Colorado alternative, no analysis at all is undertaken of the impacts of that action.

For example, at page 3-119, the discussion notes that the Colorado alternative would cross 57 more intermittent creeks, and 11 more minor perennial streams or rivers, than would the proposed action. Yet the text does not continue with any sort of analysis of the impacts of these stream and creek crossings, nor does it attempt to classify the relative importance of these new streams versus those that might be either: (1) affected by the proposed alternative, or (2) avoided along the proposed route were the Colorado alternative chosen.

This failure to conduct a detailed comparative analysis which contrasts the potential impacts of the proposed action with those from the alternative action is illustrative of a fundamental failing in the alternatives discussion and raises a serious question whether the BLM is in violation of NEPA. As emphasized in the CEQ regulations, the EIS "should present the environmental impacts of the proposal and the alternatives in comparative form." CEQ regulation at § 1502.14.

A similar failure in the depth and scope of the alternatives analysis with respect to the Colorado alternative occurs at page 3-122, where the text notes that this route would intersect a river which may be eligible for inclusion in the National Wild and Scenic Rivers System (the Arikaree), but does not explore in any way the restrictions which might prevent such a crossing, or the mitigation that might be required.

Finally, the discussion of the Colorado alternative raises the distinct possibility of damage to the whooping cranes, an endangered species. FEIS, at pp. 4-107 and 4-110. Yet the text includes no analysis of mitigation measures to avoid or minimize such harm.

B. The Oahe Reservoir Alternative.

The alternatives analysis of the Oahe Reservoir in South Dakota presents similar problems. It is listed as an alternative water source, but is allocated only seventeen pages compared to the hundreds of pages of discussion devoted to BLM's preferred Madison alternative. Under this alternative, an additional 276 mile pipeline would be constructed to transport water from the Reservoir to the Powder River Basin, with eight additional pumping stations. An intricate network of approvals and agreements would be required, including the South Dakota State Board of Water Management, the South Dakota Legislature, the U.S. Interior Department, and, depending upon the project scope and financing scheme selected, the U.S. Congress.

The FEIS fails to discuss the impact of the loss of future Oahe water resources upon downstream states. Some of these states view the Oahe as a possible supplement to the rapidly declining Ogallala Acquifer, which has been vital to Plains states agricultural production.

The FEIS also fails to review the possible conflict this diversion would create with Indian rights and the large additional number of complex Corps of Engineers water permits required due to the additional stream and river crossings. Fish and wildlife effects and the crossing of additional federal lands and preserves are given only cursory review, and the specific impact of the 118 additional stream and river crossings is not examined. The great additional costs of the Oahe pipeline, if not borne by either U.S. or South Dakota taxpayers, would require a thorough alteration of the economic and competitive discussions in the FEIS. Most of the deficiencies identified in Sections I-IV apply, of course, to this alternative as well.

In summary, the alternatives analysis within the FEIS is inadequate, and the Oahe and Colorado evaluations present serious examples of these omissions.

VI. THE FINAL EIS SUFFERS FROM KEY CONCEPTUAL AND PROCEDURAL DEFICIENCIES

In addition to the errors discussed in Parts I through V of this submission, the FEIS is inadequate as a decisionmaking document for the reason that it completely overlooks the twin-proposal nature of the coal slurry pipeline project. The project involves not only a proposal to move coal, but also a separate proposal to export 300 billion gallons of water from the Madison formation.

In addition, the FEIS is fatally flawed because the project design was altered while the analysis was underway, and because of other procedural deficiencies.

A. The Conceptual Failure.

The EIS is restricted to a consideration of a single proposal to move coal from one region of the country to another.

Thus, the alternatives to the proposal considered in the FEIS concern only: (1) alternative methods or routes for moving the coal, and (2) alternative sources for the water necessary to move the coal. These restrictions, however, are fatal to the adequacy of the FEIS.

The fundamental proposal inherent but unstated in the FEIS, and central to the ETSI system, is the proposal to export over 300 billion gallons of water from one region of the country to another over the next 50 years. The FEIS to a limited degree analyzes the impacts of this export of water. However, and critically important, the FIS is silent as to the alternative uses of this enormous volume of water and as to environmental impacts of alternative uses of the water. For example, the FEIS must compare the quality of water to be used in the slurry pipeline to the water quality standards for other uses so as to determine and evaluate alternative uses of the water source. Ideally, the water proposed for the slurry pipeline should have few alternative uses, but this is likely not the case.

The reason for this lack of analysis is the failure of the FEIS to recognize that there are two proposals inherent in the ETSI system: the proposal to move coal and the proposal to export water. The FEIS, accordingly, should analyze the reasonable alternatives of each of these proposals, as well as the environmental impacts of the proposals. However, as noted, the FEIS is silent regarding alternatives to the use of the water proposed by ETSI, and is equally devoid of environmental analyses of these alternatives.

B. The Procedural Failures.

There are four major procedural failures with the FEIS. First, public hearings were not held in all the localities affected by the project and significant project changes were made without full hearing review. These failures affect the entire comparative analysis.

Second, several of the subcontractors who contributed to the FEIS have a direct financial interest in the pipeline project. For example, Bechtel, one of the joint venturers in ETSI itself, supplied certain Madison Formation data.

Third, the FEIS on numerous occasions relies upon the fact that state or federal water quality permits will be required prior to construction of parts of the project as an excuse to avoid analysis of water quality impacts. This approach amounts to an abdication of the BLM's responsibility under NEPA to conduct its own thorough and independent impact analysis.

Finally, the FEIS nowhere reflects any effort by BLM to study existing operational coal slurry pipelines to determine whether the ETSI proposal is realistic, or to determine whether all possible issues have been addressed.

CONCLUSION

Based on its review of the FEIS and supporting technical reports, the Kansas City Southern Railway Company has major concerns, as discussed above, regarding the adequacy of the FEIS. The Company recommends that the BLM revise the FEIS to analyze in detail the problems raised in these comments, and that the Secretary of the Interior postpone any decision on the ETSI coal slurry pipeline pending receipt of a revised FEIS. In addition, the Company recommends that BLM convene public hearings to explore these important issues.

Statement of
Thomas E. Dewey, Jr.

before the
Senate Committee on Energy and Natural Resources
United States Senate
May 10, 1982

S. 1844, to Facilitate the National Distribution and Utilization of Coal

Mr. Chairman, my name is Thomas E. Dewey, Jr., and my business address is 14 Wall Street, New York, N. Y. 10005. I am a graduate of Princeton University and Harvard Business School, and am President of Thomas E. Dewey, Jr. & Co. Incorporated, a financial advisory services firm founded in December, 1975.

Prior to that, I was a partner of the international investment banking firm of Kuhn Loeb & Co. from 1965 through 1975 and associated with that firm from 1958 to 1965. My career has covered most phases of industrial, transportation and utility corporate finance, both in the U.S. and abroad. I have appeared as an expert witness before numerous courts, regulatory bodies and the U.S. Congress.

I am retained as financial consultant by Kansas City Southern Industries, Inc., parent company of the Kansas City Southern Railway Company. I am testifying in their behalf here today on the financial aspects and implications of coal slurry pipelines.

S. 1844 establishes the right of federal eminent domain and other conditions for the coal slurry industry. In approving this legislation, Congress would be taking one of the first steps toward encouraging construction of some extraordinarily expensive projects which will require vast amounts of financing. The current cost estimate, for example, of the pipeline proposed by Energy Transportation Systems, Inc. (ETSI) is approximately $3.55 billion, or almost triple the most prevalent estimate three years ago. What this project will eventually cost is anybody's guess.

It is reasonable to question whether we should be encouraging such a substantial diversion of scarce resources of investment capital to new transportation systems which are essentially duplicative of our nation's railroads. In the passage of the Staggers Act and in other recent legislation, Congress clearly established a national policy which favors economic vitality and enhancement of the national rail system.

Our recent experience with very large construction projects has not been heartening. The Alaska Pipeline eventually cost about eight times the original estimates. More recently, cost overruns on the Washington Public Power Supply System became so gigantic that, despite credit support provided by Bonneville Power Administration to several of the plants, the financing problems of the System shook the U.S. municipal bond market to its foundations, and certainly had a hand in propelling interest rates on tax-exempt bonds to levels hitherto undreamed of.

Careful study of the facts available concerning coal slurry pipeline construction and operation has caused me to conclude that there is no presently foreseeable method of financing these pipelines short of a guarantee of such financing by the U.S. government.

In general, coal slurry pipelines are thought to be desirable projects to the extent that, by creating economies of scale over long distances, they can produce a potentially restraining effect upon railroad charges for the shipment of coal. Except in cases where no rail facilities exist, the desirability of slurry pipelines has generally been thought to be for hauls in excess of one thousand miles, and I will concentrate here only on such large-scale projects.

In discussing the financing of a pipeline such as this, we are in the area of financial parlance known as "project finance". This involves single-purpose financing, generally of substantial magnitude, and generally requiring certain common elements in order to be financeable. Such elements include:

1. Ready availability of all necessary raw materials over a period at least long enough to assure repayment of indebtedness and a satisfactory return on equity. The important element here is that it be clear that there be no present or potential future restrictions on the availability of such raw materials.

2. If an extraction, manufacturing or transportation process is to be used, the process should be proven and in use in substantial existing facilities of a similar nature.

3. Enforceable contracts must be at hand for the sale of sufficient of the end product over a sufficient number of years to provide, after a reasonable contigency for inflation in operating costs, for repayment of indebtedness and a substantial return on equity. Implicit herein is the understanding that there can be no present or reasonably foreseeable future restrictions on the ability of such purchasers to perform their obligations.

4. Especially since the case of the Alaska Pipeline, it is necessary to have a credit-worthy guarantee of cost overruns, whether in the form of the price to be paid by the contract purchasers of the product, or in some other form such as the simple assumption and payment of such costs by one or more of the sponsors of the project.

Of course, these criteria can be modified or occasionally even overlooked in cases where the financing is guaranteed by sponsors whose credit exclusive of the project is sufficient to assure the safety of investor funds. This was the situation in most of the large-scale iron ore mining consortia which were sponsored by U.S. steel companies, and certainly also in the case of the Alaska Pipeline, where completion and the financing were guaranteed by a number of the largest oil companies in the world.

The ETSI project is a convenient case at hand against which to examine these financing requirements. The project cost is estimated today at $3.55 billion, but in truth we have no idea how much such a pipeline could ultimately cost. No comparable project in terms of distance, jurisdictions to be traversed, terrain, etc., has yet been undertaken. The one operational pipeline in existence, Black Mesa, is not comparable for a number of reasons, most notably its substantially smaller length and its limited service to one single customer.

There is no question in my mind that the private capital market, in appraising the financability of the ETSI project and its kin, will not be forgetting the relationship between estimated cost and final cost in the most publicized recent case of major pipeline construction--the Alaska pipeline.

Leaving aside the question of potential cost overruns, let us examine how and whether a large-scale coal slurry pipeline meets the usual criteria of project financing outlined above. As regards availability of raw materials it is probably true at the present time that sufficient coal should be available for such a pipeline. Such availability, of course, is always subject to interruption in case of a strike by coal miners. The likelihood and frequency of strikes varies from region to region. In any event, however, a coal slurry pipeline is more vulnerable to interruption of supply due to strikes than conventional means of transportation, as the coal must enter the system at a fixed beginning point. Such a pipeline does not have the flexibility that railroads possess in being able to find alternative sources of supply from regions not affected by the strike.

The subject of water availability is altogether different. ETSI's first water right, granted by the State of Wyoming to take water from the Madison Formation, was interruptable under conditions of the grant. A different water source has now been negotiated with the State of South Dakota, but it appears that the sale of this Oahe Reservoir water will be challenged by downstream States in the Missouri River Basin. Overriding the issues of State and federal law at question is the Commerce Clause of the U.S. Constitution, pursuant to which authority ETSI may or may not be able to retain its water supply against all comers. This Committee knows better than I that water availability is one of the most complicated and imponderable elements of the coal slurry debate.

It is uncertain whether the investment community will consider the Black Mesa pipeline a proven project as compared to a pipeline which is three or four times Black Mesa's length and designed to deliver up to 10 times as much annual tonnage to several terminals. We live in an age where the risks and costs associated with the protection of public health and the environment surrounding these projects are as much a red flag to prospective investors as any other risk element. The Black Mesa has already experienced one major rupture at a point along the route where containment of the slurried coal was not possible. Even within the limited scale of the Black Mesa project, treatment and disposal of waste water has presented serious problems. The prudent investor is always fearful of environmental problems which could affect the repayment of his loans or the return on his equity investment.

Perhaps even more important is the issue of financial prudence. These large projects will undoubtedly be financed, if at all, against the credit backing of iron-clad take-or-pay contracts, most likely with large public utilities. I expect this will be true even if substantial equity capital is available from the sponsors. The effect of contracts of this type is that the principal risk of project feasibility as well as cost overruns is shifted onto the back of the consumers of electric power. This is because financial markets require that the contracts be so air tight that the public utility (which gets its money from its customers) would be required to buy the slurried coal no matter what its cost, and even to pay for it whether it is delivered or not. It is easily seen that this not only deprives the contracting utility of the flexibility to chose its fuel sources in the future, but also takes out of the hands of the responsible state public service commissions a large portion of the supervisory authority they were created to exercise.

There is a serious question involved here: whether it is proper for a utility company, with or without the blessing of its local public service commission, to commit its consumers to pay electric rates over a long period of time if a primary element of that commitment is to provide credit for the benefit of the owners or operators of a slurry transportation system.

The question is compounded when the subject of potential cost overruns is examined. While it may be alarmist to assume that overruns comparable to those encountered by the Alaska Pipeline will occur, it is probably also imprudent in this inflationary age to assume that any projection made today can be an accurate forecast of what actual cost will be over a construction period of several years. The sponsoring utility, then, or more correctly its consumers, puts itself in the position of entering into an irrevocable long-term contract to purchase a product over the cost of which it has no control.

Furthermore, that cost is quite unpredictable. It does not require an extreme set of assumptions to produce a future situation where a contracting utility is paying substantially more for the slurry coal to which it is committed than it would have to pay for alternate coal mined closer to the point of consumption and shipped by conventional means. While such a situation would clearly be unfair to the consumer, the other side of this coin is that, if credit worthy purchase contracts are to lay the foundation for the financing of a slurry pipeline, this type of inflexible commitment is most assuredly required.

Another no less important issue of financial prudence is the effect a contractual obligation of this size would have on the financial condition of the contracting public utility. I know of no utility systems in the areas proposed to be served by coal slurry pipelines whose credit would not be severely affected by the mammoth fixed charges associated with an undertaking of this sort. Many of these utilities currently exhibit only marginal coverage of fixed charges due to existing heavy indebtedness. It is altogether possible that the addition of so large a further burden might make it impossible to finance other necessary capital expenditures. At the very least, the cost of further financing would be greatly increased, and such increased costs would of course have to be borne by the ratepayer.

There is, of course, one solution to the financing problem which both substantially lowers the cost of financing and also assures completion of the project. The easy solution for the sponsors of these projects would be obtaining of government guarantees on their financing, and it is in anticipation of applications of this sort that S. 1844 should be considered.

One such application for the funding of the Northwest Integrated Coal Energy System (NICES) pipeline between Wyoming and Oregon has already been submitted to the U.S. Synfuels Corporation. It is important to the debate, therefore, to point out that the legislation under consideration does provide special privilege to the coal slurry industry, and in doing so, leaves an implication of Federal support and sponsorship of any pipeline certified under the provisions of S. 1844.

Once having "blessed" the coal slurry industry in this fashion, Congress would find itself in an awkward position were it to develop, as seems likely, that only the credit of the taxpayers will produce the necessary financing.

With this likelihood in mind, then, it seems to me not unreasonable to suggest to the Committee that it endeavor to discover from the pipeline companies what their cost estimates, credit bases, and financing plans might be. Only then can it be seen whether this bill is simply the camel's nose under the tent.

I appreciate having had this opportunity to comment on the merits of this legislation.

The CHAIRMAN. Thank you, Mr. Brown.

Mr. Winger.

STATEMENT OF G. LEO WINGER, CHAIRMAN, RAILWAY PROGRESS INSTITUTE, ALEXANDRIA, VA.; ACCOMPANIED BY ROBERT A. MATTHEWS, PRESIDENT, RAILWAY PROGRESS INSTITUTE

Mr. WINGER. Thank you for this opportunity to appear before your committee and express opposition to granting the right of Federal eminent domain.

My name is G. Leo Winger, I'm president of the Metal Products Group of Midland-Ross Corp. at Sharon, Pa.; and I appear here as chairman of the Railway Progress Institute, or RIP. With me is Robert A. Matthews, our president and chief executive officer.

Our association represents some 150 companies that normally employ from 450,000 to 500,000 persons in building and supplying locomotives, cars, track, ties, fasteners, signal systems, and other equipment and supplies to the Nation's railroads and rail rapid transit systems. Our membership represents a broad cross section of the American manufacturing community. One-sixth of our member companies are listed in the Fortune 500, either in their own right or through their parent corporations. At the other end of our membership spectrum are the small parts suppliers that do less than a million dollars worth of business in a year.

You see then, Mr. Chairman, that our members who can survive this difficult economic time will be the companies that build the new locomotives and rolling stock that will be needed when the economy is healthy once more. By way of explaining our opposition to Federal eminent domain for coal slurry pipelines, let me speak of conditions in the segment of American industry I represent.

Treasury Secretary Donald Regan said last month that the economy is "dead in the water." Nationwide, we are in a recession. We have an unemployment rate of approximately 9 percent.

Our railway supply industry is not in a recession, Mr. Chairman. We are in a severe depression. Our unemployment rate is close to 50 percent.

For us, the economy must be rejuvenated and the railroads' traffic must pick up significantly so that again there will be a strong demand for new rolling stock and locomotives.

Now let me be specific. Perhaps you saw in the New York Times of April 25 a chart labeled "Casualties of the Recession," based upon research done by the Mellon Bank. This chart displayed the loss of output for selected industries from July 1981 through last February. We have attached a copy to this testimony.

Iron and steel output was off by 21 percent. Motor vehicles and parts were off by 24.4 percent. Railroad equipment led that list of casualties. Our output for those 8 months dropped not by 21 percent, not by 24.4 percent, but by 41.2 percent.

That one fact, Mr. Chairman, demonstrates why I have said that our members are in an acute depression, rather than a recession. That is why I mentioned survival in speaking of our present condition.

The National Castings Division of Midland-Ross has four plants. One of these, at Melrose Park, Ill., where 300 persons were employed, is shut down. At other plants in Cicero, Ill., in Toledo, Ohio, and in Sharon, Pa., we are operating at about 50 percent of normal employment. In Sharon there are fewer than 600 working in our plant that normally employes 1,100 workers.

The Greenville Steel Car Co. in Greenville, Pa., employs about 1,250 persons during times of peak demand. Today, there are 450 at work, temporarily. In the middle of next month, there will be none. The company plans to shut down its plant totally until new orders develop.

In Portland, Oreg., FMC Corp.'s Marine and Rail Equipment Division shut down its railcar operations last November. Almost 900 people normally employed there are out of work.

These examples are typical, Mr. Chairman. They can be corroborated industrywide. We need only look at the backlog of freight cars on order from carbuilders not yet delivered. We obtained these figures from the American Railway Car Institute and the Association of American Railroads, and our most recent figure for the backlog is 11,546 as of April 1. Another 1,053 to be built sit in railroad shops and 518 to be rebuilt gives us a total of 13,117 cars.

For comparison purposes, the backlog 3 years ago was more than 10 times as high and last year, the backlog was 3 times as high as it is now.

To put it another way, two or three of the larger carbuilders would consider today's industrywide backlog normal production for a year.

Mr. Chairman, I have cited these facts in order that this committee may understand the stake that our member companies have in the coal slurry pipeline issue. We, like so many industries in America right now, are looking for trends that promise growing demand for our products. Transportation of coal is such a trend. Many of our carbuilders, the barometers of the entire rail supply industry, are looking toward railroad investment in new coal cars as one way to restore our plants to normal levels and put thousands of people back to work.

Coal is perhaps our richest natural and economic resource now. Export coal contributes to our balance of trade. Domestic consumption of coal has lessened our dependence upon foreign oil. Transportation of coal in freight cars has helped railroads reach a rate of return slightly above 4 percent for the first time in a quarter of a century. That is far better than they were able to do in earlier years. However, a return of 4.1 percent is only about one-quarter of today's prime rate and just a bit more than one-third of the 12.1-percent rate of return that the Interstate Commerce Commission has determined to be necessary for the industry.

Even in the times of greatest freight car demand, coal slurry pipelines are not needed. We can build the cars and railroads can use them to move the largest volume of coal forecast by the most sanguine observers.

Today, in a recession for others and a depression for us, Mr. Chairman, granting the Federal right of eminent domain for coal slurry pipelines would remove the single bright spot in our industry's outlook.

We urgently request, Mr. Chairman, that this committee not report S. 1844 favorably to the Senate.

We thank you for your concern and attention. I will be pleased to respond to any questions you may wish to ask.

[The prepared statement of Mr. Winger follows:]

STATEMENT OF G. LEO WINGER
CHAIRMAN, RAILWAY PROGRESS INSTITUTE
before the
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
on
S. 1844, THE COAL DISTRIBUTION & UTILIZATION ACT OF 1981
Presented: May 10, 1982

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Thank you, Mr. Chairman, for this opportunity to appear before your Committee and express adamant opposition to granting the right of federal eminent domain to the promoters of coal slurry pipelines.

My name is G. Leo Winger. I am President of the Metal Products Group of Midland-Ross Corporation at Sharon, Pennsylvania; and I appear here as Chairman of the Railway Progress Institute, or RPI for brevity's sake. With me at the table is Robert A. Matthews, our President and staff executive officer.

Our association represents some 150 companies that noramlly employ from 450,000 to 500,000 persons in building and supplying locomotives, cars, track, ties, fasteners, signal systems, and other equipment and supplies to the nation's railroads and rail rapid transit systems. Our membership represents a broad cross section of the American manufacturing community. One-sixth of our member companies are listed in the FORTUNE 500, either in their own right or through their parent corporations. At the other end of our membership spectrum are the small-parts suppliers that do less than a million dollars worth of business in a year.

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Mr. Chairman, I have cited these facts in order that this Committee may understand the stake that our member companies have in the coal slurry pipeline issue. We, like so many industries in America right now, are looking for trends that promise growing demand for our products. Transportation of coal is such a trend. Many of our carbuilders, the barometers of the entire rail supply industry, are looking toward railroad investment in new coal cars as one way to restore our plants to normal levels and put thousands of people back to work.

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Even in the times of greatest freight car demand, coal slurry pipelines are not needed. We can build the cars and railroads can use them to move the largest volume of coal forecast by the most sanguine observers.

Today, in a recession for others and a depression for us, Mr. Chairman, granting the federal right of eminent domain for coal slurry pipelines would remove the single bright spot in our industry's outlook.

We urgently request, Mr. Chairman, that this Committee not report S. 1844 favorably to the Senate.

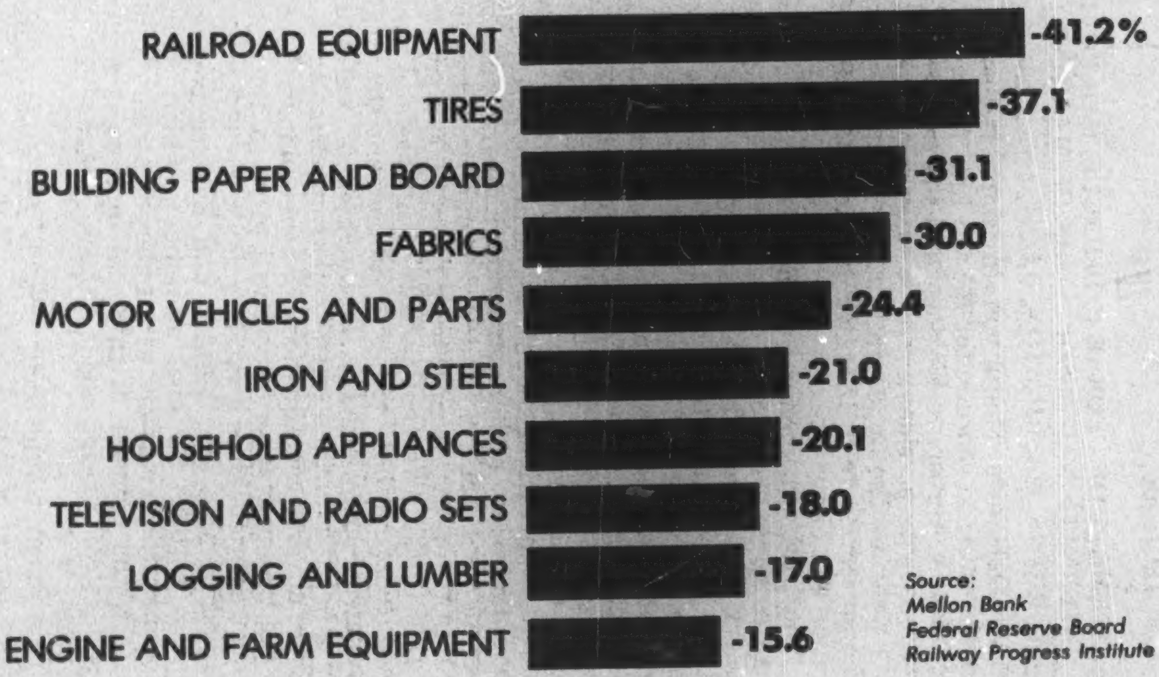
We thank you for your concern and attention. I will be pleased to respond to any questions you may wish to ask.

# # #

Attachment
May 6, 1982

CASUALTIES OF THE RECESSION

Loss of output for selected industries from the beginning of the current recession, July, 1981, through last February



Source:
Mellon Bank
Federal Reserve Board
Railway Progress Institute

The CHAIRMAN. Thank you very much, Mr. Winger.
Mr. DeHague.

STATEMENT OF GEORGE R. DeHAGUE, RAILROAD COORDINATOR, INTERNATIONAL ASSOCIATION OF MACHINISTS & AEROSPACE WORKERS, WASHINGTON, D.C.

Mr. DEHAGUE. Thank you. My name is George DeHague. I serve as the railroad coordinator for the International Association of Machinists & Aerospace Workers and I'm here representing our international vice president.

I welcome the opportunity to appear before you today to convey the opposition to S. 1844, the proposed Coal Distribution and Utilization Act of 1981.

The IAM is a member of the RLEA, and representatives of the RLEA have testified on many occasions on the subject of coal slurry legislation. The IAM is familiar with the statement which RLEA is presenting to you on this subject and it totally agrees with and supports RLEA's position. RLEA, however, as its name clearly indicates, is an association whose concern primarily rests with railroad employee interests. The IAM, while it does represent employees on rail carriers, is a multiindustrial organization which represents employees under approximately 6,000 collective-bargaining contracts in various industries, including aerospace, transportation, manufacturing, and construction industries. According to the Department of Labor's Standard Industrial Classification Directory, the IAM represents employees in over 350 types of industries.

Due to the divergent industrial interests of the members of the IAM, I appear here today to supplement the RLEA's view of this proposed legislation. The development of coal slurry pipelines, besides being injurious to the rail transportation system, could have severe adverse consequences for other industries as well.

The transportation of coal will serve to illustrate my point. Coal movement generates a significant source of income for rail carriers, located in both the Western and Eastern portions of the United States. Without the coal movements which would be diverted to pipelines, these carriers will undergo extreme financial difficulties; in fact, the transfer of this coal movement from rail carriers to pipelines could bring about financial disaster for some of these rail carriers.

This result would occur quickly for some railroads and over a longer period of time for others. But there is little doubt that the absence of this revenue will lead to a decline of the railroad industry. As a corollary of the carriers' deterioration, there will be serious ramifications for industries which rely upon the rail systems as their source of transportation.

Another specific example of the impact of this legislation can be shown by its ultimate effects upon those companies which manufacture the railcars which haul products to and from coal facilities. These companies would suffer from the creation of such pipelines because rail carriers would no longer require additional cars nor would they utilize, and thus repair, their current stock. A report issued by the Office of Technology Assessment in 1978, and reissued in 1980, projected that if these pipelines were constructed, the year 2000 would bring with it a loss of $688 million in net railway operating revenues—1971 dollars. In 1981, the total net railway operating income for the rail industry was only $675 million—1971 dollars. As the rail carriers fail, the industries which feed business to them and which provide their equipment also would falter. RLEA's estimates of the decline in employment would be extremely conservative if rail-related industry employment levels were also considered.

To cite further examples of the disruptive effect the construction of these pipelines would produce would be redundant because it is obvious that no industry operates independently. Coal strikes and the decline of the automobile industry illustrate the interdependence of the various industries in this Nation. The resultant effects on all industries and their employees should not be thought of as tangential considerations. The impact of this legislation would be felt nationwide. The IAM, in conjunction with the RLEA, advocates the rejection of S. 1844.

Thank you.

[The prepared statement of Mr. DeHague follows:]

BEFORE THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
OF THE
UNITED STATES SENATE
ON S. 1844

MAY 10, 1982

STATEMENT OF GEORGE R. DEHAGUE, RAILROAD COORDINATOR INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS

My name is George R. DeHague. I serve as the Railroad Coordinator for the International Association of Machinists and Aerospace Workers (IAM) and testify today as designee of International Vice President-Transportation John F. Peterpaul. I am accompanied by William G. Mahoney, counsel to the Railway Labor Executives' Association and to the IAM. I welcome the opportunity to appear before you today to convey to you the opposition of the IAM to S. 1844, the proposed Coal Distribution and Utilization Act of 1981.

The IAM is a member of the RLEA, and representatives of the RLEA have testified on many occasions on the subject of coal slurry legislation. The IAM is familiar with the statement which RLEA is presenting to you on this subject and it totally agrees with and supports RLEA's position. RLEA, however, as its name clearly indicates, is an association whose concern primarily rests with railroad employee interests. The IAM, while it does represent employees on rail carriers, is a multi-industrial organization which represents employees under approximately 6,000 collective bargaining contracts in various industries, including aerospace, transportation, manufacturing, and construction industries. According to the Department of Labor's Standard Industrial Classification Directory, the IAM represents employees in over 350 types of industries.

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The transportation of coal will serve to illustrate my point. Coal movement generates a significant source of income for rail carriers, located in both the Western and Eastern portions of the United States. Without the coal movements which would be diverted to pipelines, these carriers will undergo extreme financial difficulties; in fact, the transfer of this coal movement from rail carriers to pipelines could bring about financial disaster for some of these rail carriers.

This result would occur quickly for some railroads and over a longer period of time for others. But there is little doubt that the absence of this revenue will lead to a decline of the railroad industry. As a corollary of the carriers' deterioration, there will be serious ramifications for industries which rely upon the rail systems as their source of transportation.

The situation in the Northeastern United States serves as a prime example of this. Inadequate rail transportation left many industries in the Northeast without the means to obtain and sell products. Whether one can say that the depressed condition of the Northeast is solely related to transportation problems is doubtful; however, it is clear these problems contributed greatly to the Northeast's economic crisis.

By enacting legislation to construct a pipeline which would remove from the railroad industry a substantial portion of its business, this Congress could well be fostering an economic calamity for other regions of this country.

Another specific example of the impact of this legislation can be shown by its ultimate effects upon those companies which manufacture the rail cars which haul products to and from coal facilities. These companies would suffer from the creation of such pipelines because rail carriers would no longer require additional cars nor would they ultilize, and thus repair, their current stock. A report issued by the Office of Technology Assessment in 1978, and reissued in 1980, projected that if these pipelines were constructed, the year 2000 would bring with it a loss of $688 million in net railway operating revenues (1971 dollars). In 1981, the total net railway operating income for the rail industry was only $675 million (1971 dollars). As the rail carriers fail, the industries which feed business to them and which provide their equipment also would falter. RLEA's estimates of the decline in employment would be extremely conservative if rail-related industry employment levels were also considered.

RLEA accurately concedes that, should these pipelines be built, there would be an increase in the number of jobs in the construction industry. These jobs would be temporary, however, and upon completion of the project, they would cease. Such a temporary benefit does not offset the damage done to the other industries which would be affected by the passage of this legislation.

To cite further examples of the disruptive effect the construction of these pipelines would produce would be redundant because it is obvious that no industry operates independently. Coal strikes and the decline of the automobile industry illustrate the interdependency of the various industries in this nation. The resultant effects to all industries and their employees should not be thought of as tangential considerations. The impact of this legislation would be felt nationwide. The IAM, in conjunction with the RLEA, advocates the rejection of S. 1844.

Thank you.

The CHAIRMAN. Thank you very much.

Senator JOHNSTON. Mr. Briggs, you are familiar with, I'm sure the National Transportation Study done by the Department of Energy, and in that study they point out as follows:

> If all the slurry pipelines currently under construction were built and operated at full capacity, they would be able to carry 176 million tons by 1990. This amounts to 19 percent of the increase in coal haulage and 13 percent of the total amount of coal haulage.
>
> However, a recent study conducted for the Department of Energy on the potential energy and economic impacts of coal slurry pipelines, submitted to the Department of Energy in January 1980 by ICF, Inc., concluded that slurry pipelines are most likely to be carrying between 70 and 126 million tons of coal in 1990. This amounts to between 5 and 9 percent of the total coal to be transported in 1990.

My question to you is, Do you not think that NET study, that National Energy Transportation study correctly assesses the amount of coal to be hauled by coal slurry pipelines and the percent of the coal increase?

Mr. BRIGGS. No Sir. I think they're dead wrong. I think facts have proved they are wrong. We're using hindsight because we're in 1982. The number of coal slurry pipelines proposed on the board are substantially in excess of that capacity.

Senator JOHNSON. Which capacity? Between 70 and 126 million?

Mr. BRIGGS. You were talking about if all the pipelines were built. If the pipelines were built that I've outlined in my testimony, and they happen to be the 13 squiggly lines you see on the charts, when you talk to coal slurry pipeline advocates which are in the 250 million, you have today witnesses from ETSI and Coalstream, there's 80 million tons right there. No others came onboard at all and that's 80 million tons.

Now the second weakness I think in that analysis is that their projections I think of where coal production will go in this country are far too high. Now the best guess that we have is 1.2 billion tons by 1990. That's about 362 million more than we had last year.

Our share of the current pie is about two-thirds. I don't suspect the pipelines will take much from the barges because that's not simply where it's set up, so it's all coming out of our hide; 250 million tons is our total share of that.

They talk about relatively little harm to the railroads. If you look at their own studies to the benefits to Florida and Georgia, and they produced a figure of some $31 million with a savings in 1990 that came out to be $.47 a month for each household, but if you look at the $31 million, they assume that every single bit of rail coal transportation in Georgia and Florida will be taken away from the railroads. And we're just talking about huge increments.

Let me just go on to——

Senator JOHNSTON. Wait a minute. Let me ask you some more questions. Do you believe that the economics are with coal slurry pipelines? Because implicit in your judgment is the fact that coal slurry pipelines are more economical and can get the business because they will charge lower rates.

Mr. BRIGGS. No, I don't think the basic economics are with pipelines, but that's no reason to think they won't be built, because once they're built they're going to haul coal. The question is, you have an equation here where coal slurry pipelines can operate at a distinct advantage, without obligations that the railroads have to have.

Senator JOHNSTON. They have some disadvantages too. They don't have Federal subsidies at all.

Mr. BRIGGS. I wish our perception of Federal subsidies was as great as most people think it is.

Senator JOHNSTON. Don't get me wrong. I don't want to take away the Railroad Retirement Act. I'm a supporter of that. I voted for that last time, by the way. But at the same time, coal slurry pipelines don't have any of that, and it seems to me that in the marketplace you would never be able to go in and get private financing or get contracts from public utilities unless they can show and demonstrate very conclusively that the economics are going to be there for the coal slurry pipeline.

Mr. BRIGGS. The economics, as I say, I have questions with their figures. Obviously the economics that they projected 5 years ago have been shot to hell because of double digit inflation. It's all front end to them, but beyond that, the fact is that they will be able to operate and skim the cream off the top, and we can't do that. The Interstate Commerce Commission won't let us do it, Congress hasn't let us do it, they will go in and tie up the customers and for 25 years under that take-and-pay contract you won't have one bit of competition. There won't be competition from other forms of transportation or from other forms of energy.

Senator JOHNSTON. Let me ask you about this competition. Isn't it competition when someone has the ability to build that coal slurry pipeline? Doesn't it amount to competition because you as a rail hauler then cannot charge what you might otherwise charge because you know that they might come in and build that coal slurry pipeline?

Mr. BRIGGS. There's no question that originally you have competition. In the weeks and months before the final contracts were agreed upon, you'd have competition.

And then you'd have nothing for 25 years. You'd have one absolute total monopoly.

So there would be initial competition. You bring someone else in, bring a new mode of transportation, and until they agreed, there would be competition. And then after that it's gone.

Senator JOHNSTON. You heard the former mayor of San Antonio testify here. She said rates went up some 400 percent and that they didn't have any place else to turn. Did they in fact have any place else to turn?

Mr. BRIGGS. No, but they would today and let me distinguish that.

In the first place, there is no question that those rates went up. We've had inflation like everyone else.

Senator JOHNSTON. 400 percent?

Mr. BRIGGS. No, but we didn't have any—we had to rebuild a secondary line into a main line.

Senator JOHNSTON. Did you go up 400 percent on the other rates?

Mr. BRIGGS. No.

Senator JOHNSTON. Why just coal?

Mr. BRIGGS. It wasn't just coal, it was the coal in San Antonio. But let me distinguish the situation in which that rate was originally quoted and the situation today, because I think that is what is material.

At the time the San Antonio rate was negotiated, the railroads did not have the ability to offer contracts, binding contracts. The shippers couldn't get them if they wanted to. So they ended up getting a contract with the mine, being locked into the mine, but not locked into the rail rate, which was subject to change by the request of either party and with the approval of the Interstate Commerce Commission.

Today you have that authority and any utility that went out and locked itself into a contract without tying up the transportation first would be somewhat short of prudent.

Second, the Powder River Basin at that time, and it still is today, the subject of one railroad. In the future there are going to be two railroads in there so you have real competition. And I think that makes it entirely different. You don't have any significant coal producing area in this country that I know of where you don't have very substantial competition among the railroads, and if you look at the Powder River controversy, if it tells anything it tells of the different railroad interests. They are hardly in agreement. It's a highly competitive situation.

Senator JOHNSTON. How many railroads supply that——

Mr. BRIGGS. At present the Burlington Northern and the Chicago Northwest and its track runs in combination with the Union Pacific. That requires some construction. But there are going to be two major railroads, healthy, viable, serving the Powder River Basin.

Perhaps more important, however, is the existing contract that we now have. The shipper can go in and negotiate that contract and you can't change the terms of the contract.

In the long run it seems to me the contracting provisions are really going to eliminate the controversy because parties can get together in private and decide what they can and can't agree with, and once they agree they won't be standing in public forums trying to put pressure on the Interstate Commerce Commission to change a situation they later found they didn't like.

Senator JOHNSTON. Under the Staggers Rail Act they can go in and make a long-term contract?

Mr. BRIGGS. Subject to limitation.

Senator JOHNSTON. Now if that's bad for the coal slurry pipeline, why isn't it bad for the railroads?

Mr. BRIGGS. As I said, coal slurry pipelines have the right to do it, to go in and make a contract which would use all of its capacity today and in the future and assign it to one ship. Under the legislation you propose there are no guidelines as to whether if you had three shippers they would even have to pro-rate. In other words, three people want to use it, they can agree to sell it to one.

We don't have that right. When we go in we not only have to show that we have the capacity to meet other probable shipper demands today, but we cannot sign off all our capacity tomorrow, and that is a distinct difference.

Senator JOHNSTON. But you can make 25-year contracts with San Antonio Electric?

Mr. BRIGGS. As long as you didn't use your capacity.

Senator JOHNSTON. That was a bad situation you say with respect to coal slurry pipelines.

Mr. BRIGGS. What I said was they had a right to go in and lock in the carriers and commit all their capacity and I think that is the distinct difference. I was making the point that under Staggers we don't have the same rights as coal slurry. I think any time you go in and you tie up your capacity for 25 years, you're going to find problems. We found that most of the new coal contracts negotiated since Staggers have been for materially shorter periods because the utilities didn't think it was prudent to lock themselves up for 25 years.

Senator JOHNSTON. Mr. Mahoney, you say that railroads are more energy efficient, but railroads use what kind of fuel?

Mr. MAHONEY. They use diesel fuel primarily.

Senator JOHNSTON. Coal slurry pipelines use what kind of fuel?

Mr. MAHONEY. Water, and I suppose coal and electricity.

Senator JOHNSTON. They use electric pumps, don't they? Which are generated for the most part by coal.

So in terms of energy efficiency, if you're talking about preservation of scarce fuels meaning petroleum, a coal slurry pipeline is certainly more conserving of petroleum products, is it not?

Mr. MAHONEY. They are where you're talking about use of diesel fuel as opposed to coal energy. But my point was that unit coal trains are more energy efficient than the coal pipeline as pointed out in the Congressional Budget Office study.

Senator JOHNSTON. I'm familiar with that study, but the point I'm making is we're not talking just about preservation of energy, but of the scarce energy, namely petroleum. We have plenty of coal. We're not trying to preserve coal because we have plenty of that. It's the petroleum that we're short of.

Thank you, Mr. Chairman.

The CHAIRMAN. I have a number of questions, but in the interest of time, I'll withhold those questions at this time, and I may or may not submit written questions to members of the panel for response.

Thank you gentlemen, very much for your testimony.

Our concluding panel is composed of Mr. Jim Miller, assistant legislative director, National Grange; George L. Berg, assistant director of national affairs division, American Farm Bureau; Mr. John McCormick, Environmental Policy Center.

Again, gentlemen, the statements provided to the committee will be made part of the record in full, and I would invite you to summarize your statements if you could do so.

Mr. Miller.

STATEMENT OF JIM MILLER, ASSISTANT LEGISLATIVE DIRECTOR, THE NATIONAL GRANGE

Mr. MILLER. Thank you. I appreciate this opportunity to appear before this committee and speak to the proposal S. 1844. I'd like to submit testimony in opposition to the bill, and I'll summarize my remarks.

For some time the debate between coal slurry, or on coal slurry pipelines has been pretty much publicly structured as an energy struggle between railroads on the one hand and the coal slurry industry on the other. The longstanding clash between these industrial giants has clearly obscured a significant element of the debate. The National Grange doesn't believe or accept the slurry's claim about the railroads. We've learned, after years of debate, that the slurry industry fears not the mighty anticompetitive railroads, but the nonrailroad landowners.

Who are the nonrailroad landowners? Mr. Chairman, we are.

On February 23, the House Public Works Committee received a memorandum from the recently created Alliance for Coal and Competitive Transportation, an organization promoting coal slurry pipelines. That memorandum which I would like to submit for the record today, discusses in considerable detail the industry's position on eminent domain, their defined need and justification for eminent domain, and the purpose of its being granted.

The Alliance submitted the memorandum to the committee because the slurry bill in the previous Congress emerged with a limitation on eminent domain. The Public Works Committee limited the use of eminent domain to railroads. After all, the thinking went, the railroads were the stated obstacles, therefore the legislation was tailored to meet the expressed need. Now, however, we are learning that the carefully defined "enemy" of coal slurry pipelines, the railroads, are not quite the obstacles that everyone has been led to believe.

According to the ACCT memorandum:

> Federal eminent domain legislation that is restricted to railroad rights-of-way addresses only a small portion of a coal pipeline's current obstacles.

The memorandum goes on to state that farmers and ranchers are real problems and effectively pose serious threats to the pipelines. ACCT states:

> Inevitably, there are nonrailroad landowners who could absolutely refuse to grant rights-of-way across their lands or demand exorbitant prices in exchange for a right-of-way, driving up the time and expense for the construction of the pipeline.

Stating further, the Alliance declares that "adjacent landowners could organize together in their recalcitrance and effectively prevent construction of the pipeline at all."

Mr. Chairman, with this attitude, shouldn't landowners fear this legislation? We fear this legislation and we agree we have every right to do so.

Our concerns with the bill are not limited simply to the issue of Federal eminent domain. We would like to also bring attention to problems of water rights.

Rather than restate some of the well-known concerns about water, the National Grange would raise two specific concerns about water and slurry pipelines. The first issue relates specifically to the ETSI transaction. Obviously, the Interior Department's EIS is deficient because most of the discussion relates to obtaining water from the Madison Formation. There is little or no discussion of the impact of the annual sale of 50,000 acre-feet of water from the Lake Oahe Reservoir. But, of equal importance, there is no discussion of what happens to the water after the coal and water are separated at the utility's site.

Second, there is considerable confusion and obfuscation of the issues because a single pipeline proposal is extremely controversial, but the legislation is general in nature. As the committee is aware, the legislation provides general authority for coal pipelines. This legislation may well assist ETSI, but is not limited in its application to ETSI.

But the impacts and concerns have almost always been discussed in terms of ETSI. The review process relating to ETSI has gone on for some time, and while there are numerous deficiencies in it, there is nonetheless considerable general information about that transaction. But what of the others? What will the water demands and impacts of five pipelines be? Of 10 pipelines? Of 15 pipelines?

I'll conclude my remarks at this point and be happy to respond to any questions you might have.

[The prepared statement of Mr. Miller follows:]

STATEMENT OF JIM MILLER

THE NATIONAL GRANGE

ON S. 1844

LEGISLATION ON COAL SLURRY PIPELINES

Mr. Chairman and members of the Committee. The National Grange opposes the legislation granting the power of eminent domain to the coal slurry industry. It should be rejected by this committee and the entire Senate.

We do not have to tell this committee about the numerous and seemingly unending controversies associated with the slurry proposals. A new one seems to crop up every month or so. From our vantage point, at the very time that legislation, once again, begins to move, the industry itself appears to be in the midst of serious financial problems and internal reconsideration. We note, for instance, that Kansas-Nebraska Natural Gas, a partner in ETSI, recently announced that part of its share of ETSI was up for sale and ETSI spokesmen were recently quoted western newspapers saying that pipeline financing may have to come from foreign sources.

Controversies over water are similarly, a major problem. The ETSI sale from the Lake Oahe reservoir is continuing to raise serious and fundamental questions about the integrity of the Missouri River, and from our perspective, the impact on our farmer's ability to ship our commodities on barges.

EMINENT DOMAIN

The fundamental purpose of this legislation is to legislatively grant the power of eminent domain to a series of private construction, energy, and financial concerns. That power would be used to obtain the necessary rights-of-way within a designated corridor so that various pipelines could be constructed. As you are aware, the pipelines would originate in the coal fields of Wyoming and would extend, in some cases more than 1,000 miles to ports, and utilities for either export or domestic consumption.

Without a doubt, the major construction impact is, and will be, to farmland within a pipeline corridor.

For sometime, the debate has been publicly structured as an energy struggle, between the mighty railroads on one hand and the upstart coal slurry industry. The railroads, it is said, feared the competition while the slurry industry wanted to break the monopoly on coal transportation and provide for meaninful competition, to the ultimate benefit of the consumer. Newspapers and general media coverage of the issue has promoted this theme. The public debate has generally centered on it. Even cases before the ICC have been focused on this dispute among and between industries.

The National Grange has followed these developments with considerable interest over the past several years. We have followed the consideration of slurry legislation as well. Now, in the 97th Congress, second session, the legislation is once again being actively considered here in the congress. The purpose of the legislation, in political terms, is to give the power of eminent domain to the private sector slurry industry so that it may be invoked against the railroads who have repeatedly refused to grant ETSI and the slurry industry the right to cross their tracks.

The long-standing clash between these industrial giants has clearly obscured a significant element of the debate. The National Grange does not believe nor does it accept the slurry industry's claims about the railroads. We believe them to be false — and even misleading. They distort the focus of debate for, what appears to be nothing more than public relations reasons.

We have learned after years of debate, that the slurry industry fears not the mighty "anti-competitive" railroads, but the "non-railroad landowners." Who are the "non-railroad landowners?"

Mr. Chairman, we are! The farmers and ranchers in rural America who own and operate food and fiber producing land are the targeted "non-railroad landowners." By the industry's very words, privately presented to the House Public Works Committee, we learn that the farmers and ranchers from our rural areas are the reason and justification for seeking eminent domain legislation. The railroads are little more than the "public whipping boy" from our perspective.

SLURRY INDUSTRY MEMORANDUM

On February 23, House Public Works Committee received a memorandum from the recently created Alliance for Coal and Competitive Transportation, an organization promoting coal slurry pipelines. That memorandum discusses, in considerable detail, the industry's position on eminent domain, their defined need and justification for eminent domain, and the purpose of its being granted.

The Alliance submitted the memorandum to the Committee because the slurry bill in the previous congress emerged with a limitation on eminent domain. The Public Works Committee limited the use of eminent domain to railroads. After all, the thinking went, the railroads were the stated obstacles, therefore the legislation was tailored to meeting the expressed need. Now, however, we are learning that the carefully defined "enemy" of coal slurry pipelines, the railroads, are not quite the obstacles that everyone has been lead to believe.

According to the ACCT memorandum, "federal eminent domain legislation that is restricted to railroad rights-of-way addresses only a small portion of a coal pipeline's current obstacles." The railroads, therefore, as defined by the industry itself, are only a "small portion" of the problem, notiwthstanding all of the media and public claims to the contrary.

The memorandum goes on to state that the farmers and ranchers are real problems and effectively pose serious threats to the pipelines. ACCT states, "inevitably, there are non-railroad landowners who could absolutely refuse to grant rights-of-way across their lands or demand exorbitant prices in exchange for a right-of-way, driving up the time and expense for the construction of the pipeline."

Stating further, the Alliance declares that " adjacent landowners could organize together in their recalcitrance and effectively prevent construction of the pipeline at all."

After more than five or six years of punding away at the railroads, we learn that the railroads are only a minor obstacle while the farmers and ranchers are the major problems. The industry's solution to this critical problem is to arm themselves with an ability to intimidate — the federally created power of eminent domain.

We fear this legislation and have every right to do so. If this Committee, and ultimately the Congress, provide this private sector industry with this power, it will obviously be invoked with the attitude that the farmers and ranchers in the pipeline corridors are "recalcitrant." This enormous power, when given, must be extended with the greatest care and sensitivity. The slurry industry cannot possibly meet this test.

This memorandum a direct insult to farmers and ranchers. This legislation is a direct threat to those who must produce the nation's food and fiber, and at the same time, provide $40 billion in exports to assist our balance of payments.

WATER IMPACTS

Our concerns are not entirely limited to matters associated with eminent domain legislation. Our farmers and ranchers are expressing great fears about the impact on water from the well-known ETSI sale. The real impact to the Missouri River is not known at this time. If the barge season is shortened as a result of this water sale, that hurts the farmers of the region. It may impact our ability to get crops to ports for export.

Rather than restate some of the well-known concerns about water, The National Grange will raise two specific concerns about water and slurry pipelines. The first issue relates specifically to the ETSI transaction. Obviously, the Interior Department's EIS is deficient because most of the discussion relates to obtaining water from the Madison Formation. There is little or no discussion of the impact of the annual sale of 50,000 acre feet of water from Lake Oahe Reservoir. But, of equal importance, there is no discussion of what happens to the water after the coal and water are separated at the utility's site. We are not only shipping coal through the pipeline, but we are shipping another commodity — water. We're told, in some detail what happens to the coal, but not the water. The industry and the department have the responsibility to provide that information.

Second, there is considerable confusion and obfuscation of the issues because a single pipeline proposal is extremely controversial, but the legislation is general in nature. As the committee is aware, the legislation provides general authority for coal pipelines. This legislation may well assist ETSI, but is not limited in its application to ETSI.

But the impacts and concerns have almost always been disucssed in terms of ETSI. The review process relating to ETSI as gone on for some time, and while there are numerous deficiencies in it, there is nonetheless considerable general information about that transaction. But what of the others. What will the water demands and impacts of five pipelines be? Of 10 pipelines? Of 15 pipelines.

ETSI and this legislation are considered by some to be the same. They are not. They National Grange would recommend, that before this legislation is given further consideration by the Energy Committee, that the industry be compelled to reveal its development plans and strategies and identify how many pipelines are being considered, and, with specificity, where the water will come from for each pipeline. Rational public policy demands that this information be insisted upon before further consideration of this legislation. Fairness for the farmer insists upon it.

CONCLUSION

The National Grange opposes this legislation. The Senate Energy Committee should not vote to report this legislation. The industry's demonstrated insensitivity to farmers and ranchers should disqualify them for having the federally granted power of eminent domain. The stated attitude towards farmers and rural citizens reveal that the prospects for abuse are considerable.

The Committee should insist upon knowing and having the industry display all of the development proposals for coal pipelines. In addition. the collective water impacts of all the development proposals should be known. The industry and DOI should collect, quantify, and provide this information to the congress and the public.

As the Committee well knows, the American farmer today faces serious problems. Our cost of production is skyrocketing, particularly the cost of credit. Farms are foreclosing all over the country. Do not saddle the farmer with the burden of being confronted with a pipeline representative who shows up at the farm gate and says, "if you don't cooperate, we'll condemn your property." It's not sound public policy. It's not fair.

The Kansas City Times
Business
March 6, 1982

Slurry firms widen request on route rights

By Rick Atkinson
National Correspondent

WASHINGTON — Unless federal legislation allows coal-slurry companies the authority to condemn private property needed for pipeline construction, most of the projects probably will never be built, according to a memorandum from an alliance of slurry advocates.

Dated Feb. 23 and addressed to the House Public Works and Transportation Committee, the memo acknowledges that problems in crossing railroad property — heretofore the focus of disputes in laying slurry pipeline — are "only a small portion of a coal pipeline's current obstacles."

"Inevitably," continues the four-page note from the Alliance for Coal and Competitive Transportation, "there are non-railroad landowners who could absolutely refuse to grant rights-of-way across their land or demand exorbitant prices in exchange for a right-of-way, driving up the time and expense for construction of the pipeline."

Critics of the seven proposed pipeline systems contend that giving federal eminent domain authority to slurry builders could have unpleasant consequences for landowners in the path of the 7,000 miles of pipeline.

"We think they've been very deceptive because they've continually said that they needed (condemnation authority) to get across railroad property," said Frank Wilner, an economist for the Association of American Railroads. "I think this is the first time that anybody among the slurry advocates has been upfront about the real reasons that they wanted federal eminent domain . . . namely, to get across ranches and farm land."

Slurry pipeline spokesmen contend that is nonsense. Eminent domain powers for the pipelines have been proposed — unsuccessfully — to previous congresses, although the issue of non-railroad property usually was soft-pedaled; such powers have been used for natural gas and petroleum pipes, hydropower lines and railroads themselves when they were opening up the country years ago, supporters say.

The railroads are inflating the eminent domain issue because "they want to keep coal as a captive market for themselves," says Joseph Hillins, executive director of the coal alliance. And without that federal authority, most of the underground pipelines will die on the drawing board, added George Eatman, executive director of the Slurry Transport Association.

The alliance memo counterpunches at behind-the-scenes efforts to limit pipeline domain privileges strictly to railroad property; such thinking is denounced as "sham," "bad policy" and destined to doom "construction of interstate pipelines."

The eminent domain dispute apparently will not affect a pipeline planned by the Energy Transportation Systems Inc. The pipeline from Wyoming through Kansas to Arkansas is still on schedule, and construction is scheduled to begin next year, said George R. Coffey, spokesman in San Francisco for ETSI, as the firm is known.

ETSI has won the right to cross railroad property in 66 successful lawsuits; roughly 70 percent of the other 5,000 landowners have agreed to right-of-way terms during negotiations begun 14 months ago, Mr. Coffey added.

As currently envisioned, the ETSI project will crush Wyoming coal to the consistency of sugar, mix it with water and pump 25 million tons annually to power plants in Oklahoma, Arkansas and Louisiana.

But there is "no doubt that federal eminent domain is necessary" if the other projects are to be built — something supporters think is crucial to reduce dependence on foreign oil.

"Adjacent landowners could organize in their recalcitrance and effectively prevent construction of the pipeline at all," the alliance memo says.

Some farm groups, already hostile over the amount of precious water needed to mix the slurry, are inflamed further at the idea of pipeline companies having federal authority to condemn farm and ranch land.

"They thought they could avoid a lot of farmer resistance by blaming it on the big, bad railroads," says Bob Mullins, a lobbyist for the National Farmers Union. "And that's just not true. We are determined to block those pipelines until they can figure out a way to pipe the water they use back to where they got it in the same quantity and quality."

Mr. Eatman contends that construction of the underground pipelines would disrupt a farmer's crop on that tract for only one season and that the farmer would receive adequate compensation paid to cover both the crop and the land.

Sources close to the public works panel say it is unclear how the legislation will fare. President Reagan in November endorsed the slurry pipelines, but suggested the eminent domain issue best be left to the states.

Alliance for Coal and Competitive Transportation

February 23, 1982

RE: Constructing Interstate Coal Pipelines With Federal Eminent Domain Limited To Railroad Property

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Carl E. Bagge, Chairman
Frederick [illegible], Vice Chairman
E. Joseph Hillings

American Association of Retired Persons
American Consulting Engineers Council
American Mining Congress
American Public Power Association
Associated Builders and Contractors, Inc.
Building and Construction Trades Department, AFL-CIO
Consumer Federation of America
Eastern Coal Transportation Conference
Edison Electric Institute
International Brotherhood of Teamsters
International Union of Operating Engineers, AFL-CIO
Laborers International Union of North America, AFL-CIO, CLC
Mining and Reclamation Council
National Alliance of Senior Citizens
National Coal Association
National Rural Electric Cooperative Association
United Association of Plumbers and Pipefitters, AFL-CIO
Slurry Transport Association
Western Coal Traffic League
Western Fuels Association

PROPOSAL:

A proposal has been made to amend H.R. 4230, the Coal Pipeline Act of 1981, to provide that any eminent domain authority granted to interstate coal pipelines be limited to cover only "railroad rights-of-way" or "railroad property". Specifically, it has been suggested that the amendment could be patterned after Section 10901(d)(1) of the Interstate Commerce Act which prohibits a railroad subject to ICC jurisdiction from preventing another regulated railroad from crossing its "property", although the statute seems to limit the meaning of the term property to "railroad rights-of-way."

The suggestion also has been made that the limitation could be expanded to cover all "railroad property" similar to the limitation contained in the 1980 version of the interstate coal pipeline legislation that was reported by the House Public Works and Transportation Committee. That legislation referred to lands "owned by any common carrier who is engaged in the interstate transportation of coal by any mode of transportation". Interestingly, none of these terms were defined in the 1980 legislation.

RESPONSE:

The proposal to limit eminent domain either to "railroad rights-of-way" or "railroad property" is fraught with legal and practical problems and represents bad public policy. If the development of interstate coal pipelines is to be facilitated by Federal legislation, these proposals must be rejected.

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The proposal creates legal problems:

Considerable legal uncertainty will be created by limiting the exercise of the eminent domain authority to "railroad rights-of-way" or "railroad property". Review of Federal statutes reveals a variety of definitions for the terms "railroad", "railroad property", "common carrier" and other such definitions. To be complete, any definition of "railroad property" would have to include the amorphous concept of "control" so that property held by a person controlled by a railroad would be covered. (See Attachment A for some examples of such definitions.) Given the inherent uncertainties in such definitions, determinations of whether particular parcels of property are subject to the exercise of eminent domain authority will be the subject of endless litigation. The opportunity for such litigation will hinder the development of interstate coal pipelines.

An example of the legal uncertainties that are created by such definitions is set forth in the November, 1980 report of the Department of Justice entitled "Competition in the Coal Industry". (See Attachment B.)

The proposal is not practical:

Under the proposal, interstate coal pipelines will be able to either (1) cross "railroad rights-of-way" or "railroad property" or (2) be built along the rights-of-way that are owned by the railroads. Neither of these two approaches will result in the construction of interstate coal pipelines.

(1) Pipeline crossing railroad rights-of-way or property:

Federal eminent domain legislation for coal pipelines that is restricted to railroad rights-of-way addresses only a small portion of a coal pipeline's current obstacles. Inevitably, there are non-railroad landowners who could absolutely refuse to grant rights-of-way across their land or demand exorbitant prices in exchange for a right-of-way, driving up the time and expense for construction of the pipeline. Additionally, adjacent landowners could organize together in their recalcitrance and effectively prevent construction of the pipeline at all. The ETSI pipeline has experienced this problem in Nebraska, where a group of landowners may force the rerouting of the pipeline through Colorado adding tens of millions of dollars to the cost of the pipeline.

For example, even with the existence of Federal eminent domain power, an 882-mile natural gas pipeline constructed in 1959 between Ft. Lauderdale, Florida and Baton Rouge, Louisiana had to resort to judicial condemnation proceedings for access to 311 or 17-1/2% of the 1,773 total tracts of land crossed by the pipeline. Furthermore, many of the 1,773 tracts of land were owned by states and the Federal governments, who did not protest, and by the railroads, who also did not contest the acquisition of rights-of-way for this particular pipeline that had access to Federal eminent domain authority. Without access to Federal eminent domain authority, interstate coal pipelines simply will not be able to obtain the rights-of-way required to develop the pipeline.

The proposed limited eminent domain grant, if adopted, would not stop the railroads from using their substantial economic power to block the development of such pipelines. Railroad companies own rights-of-way, vast tracts of property (particularly in the west where sections of land were granted to the railroads by the Federal government as an inducement to build the western lines), and interests in companies that own land or lease property through which pipelines must pass. Assuming all of these ownership interests can be defined with legal certainty, the definition could not reach to land owned by active or retired railroad executives, railroad workers or their relatives, and any number of other individuals or corporations that might not welcome the competition interstate coal pipelines will provide the railroads.

(2) Constructing pipelines along railroad rights-of-way is not feasible:

It has been suggested that a coal pipeline, in order to take full advantage of the restricted eminent domain power may be constructed along a railroad right-of-way (either under or alongside the tracks). This construction alternative is completely unworkable, for many reasons:

- A right-of-way of approximately 100-feet wide is acquired to build a pipeline in order to provide necessary room for earthmoving machinery to operate, ditches to be built and dirt stored, and for the pipe to be brought and laid. Railroad rights-of-way are usually only 25 feet wide.

- In many parts of the country, towns and cities have been built along railroad tracks, as the frontier areas were developed and settled. Pipeline construction alongside those tracks today would needlessly disrupt the activity of residents in the center of many of our nation's cities and towns.

- Although a pipeline can be constructed across tracks without disrupting the rail service along those tracks, a pipeline could not be constructed completely under or alongside railroad tracks without disruptions to rail service.

- Railroad structures such as signs, water tanks, and underground signal cables exist alongside the tracks. The railroad rights-of-way are not wide enough to allow construction of a pipeline around such structures without, again, overlapping onto private lands.

- Railroad routes tend to be longer than pipeline routes because railroads cannot operate on steep grades and must go around hills while pipelines can go through them. For example, a railroad connecting Shawneetown, Illinois to Indiantown, Florida is 1,194 miles long, while a pipeline between those same two points would only be 959 miles long. Using the railroad right-of-way to site the pipeline is inefficient and will cause the pipeline to be 24% longer than necessary, adding unnecessarily to its cost.

The proposal is not good public policy:

Congress is again considering legislation to facilitate the development of interstate coal pipelines by extending to interstate coal pipelines the same Federal eminent domain authority that has been extended to interstate natural gas pipelines; interstate petroleum pipelines and the western land grant railroads during their formative stages. None of these interstate transportation systems received Federal eminent domain authority that was limited in the fashion suggested in this proposal. In fact, the Union Pacific Railroad did not obtain Federal eminent domain authority in 1862 as part of the Union Pacific Railroad Act of 1862, but obtained Federal eminent domain authority in 1864. Apparently, two years of experience convinced the Union Pacific that full Federal eminent domain authority was needed.

Moreover, since the only justification for granting the extraordinary power of Federal eminent domain to interstate coal pipelines is a determination by the Congress that such pipelines provide public benefits and are, therefore, in the national interest. There is no justification for limiting the exercise of the authority to property owned by a certain class of persons. To be effective, access to the power of Federal eminent domain by such pipelines must be certain and complete. Anything less will delay, rather than facilitate, the development of such pipelines and render the Congressional determination a sham.

The CHAIRMAN. Thank you very much.

Mr. Berg?

STATEMENT OF GEORGE L. BERG, JR., ASSISTANT DIRECTOR, NATIONAL AFFAIRS DIVISION, AMERICAN FARM BUREAU FEDERATION, WASHINGTON, D.C.

Mr. BERG. My name is George Berg, and I appear here before the Committee as Assistant Director of the National Affairs Division, American Farm Bureau.

The American Farm Bureau Federation is pleased to comment on S. 1844, the Coal Utilization and Distribution Act.

Farm Bureau is the Nation's largest general farm organization representing more than 3 million member families in 48 States and Puerto Rico.

Farm Bureau policy regarding coal slurry pipelines, as adopted by the voting delegates of the member State Farm Bureaus at the American Farm Bureau Federation's annual meeting in January 1982 states:

> Federal legislation dealing with coal slurry pipelines should:
>
> (1) Respect State water laws;
>
> (2) Respect State laws concerning property rights and eminent domain procedures;
>
> (3) Require payments to owners for damages done to their property; and
>
> (4) Provide that a State which has a water compact with another State shall receive credit for the amount of water that is transported to the other State in a coal slurry pipeline.

Mr. Chairman, in addition to the Federal legislation which has been introduced in both the House and Senate, there have been extensive State legislative proceedings on the coal slurry question. Several State legislatures have rejected coal slurry eminent domain proposals. Other States have passed coal slurry legislation which restricts and heavily regulates any coal slurry activity within the particular State.

As indicated by our policy, Farm Bureau is concerned about the water resources of the country and the stability that water provides the agricultural, industrial, and domestic elements of an entire region. There is ample legislation at the Federal level dealing with the allocation of surface water, the rivers, the lakes and the streams. There is little protection, however, for our underground water resources, which provide much of the usable water for cities, towns, farms, and ranches throughout the country. Coal slurry systems might use much of that underground water as a means of transportation in coal slurry pipelines. This is why Farm Bureau is concerned that any Federal legislation dealing with coal slurry pipelines must respect State water laws.

As far as water compacts between the States are concerned, we believe that every effort must be made to insure protection to individual States without the necessity of resorting to costly litigation. Legislation could be enacted that would provide a credit to one State for the water that is transported to the other State.

On November 16, 1981, President Reagan stated his position on legislation concerning coal slurry pipelines. In a memorandum to the Secretary of Interior, the President said,

> Coal slurry pipelines may be an efficient and cost-justified way to move coal and they should be allowed to compete on their own merits as contributors to improving

America's energy situation. I recognize that there may be significant problems in right-of-way acquisition; however, this administration will not support legislation which has been introduced in Congress to provide a Federal right of eminent domain to override these difficulties.

Farm Bureau supports the President's position with respect to coal slurry pipelines because we believe that such decisions about eminent domain can, and should, properly be made by the States involved.

We very much appreciate the opportunity to present our view.

[The prepared statement of Mr. Berg follows:]

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION TO THE COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE REGARDING S. 1844, THE COAL UTILIZATION AND DISTRIBUTION ACT

Presented by George L. Berg, Jr.
Assistant Director, National Affairs Division

May 10, 1982

The American Farm Bureau Federation is pleased to comment on S. 1844, the Coal Utilization and Distribution Act.

Farm Bureau is the nation's largest general farm organization representing more than three million member families in 48 states and Puerto Rico.

Farm Bureau policy regarding coal slurry pipelines, as adopted by the voting delegates of the member State Farm Bureaus at the American Farm Bureau Federation's annual meeting in January 1982 states:

> "Federal legislation dealing with coal slurry pipelines should:
>
> (1) Respect state water laws;
>
> (2) Respect state laws concerning property rights and eminent domain procedures;
>
> (3) Require payments to owners for damages done to their property; and
>
> (4) Provide that a state which has a water compact with another state shall receive credit for the amount of water that is transported to the other state in a coal slurry pipeline."

Mr. Chairman, in addition to the federal legislation which has been introduced in both the House and Senate, there have been extensive state legislative proceedings on the coal slurry question. Several state legislatures have rejected coal slurry eminent domain proposals. Other states have passed coal slurry legislation which restricts and heavily regulates any coal slurry activity within the particular state.

As indicated by our policy, Farm Bureau is concerned about the water resources of the country and the stability that water provides the agricultural, industrial and domestic elements of an entire region. There is ample legislation at the federal level dealing with the allocation of surface water, the rivers, the lakes and the streams. There is little protection, however, for our underground water resources, which provide much of the usable water for cities, towns, farms, and ranches throughout the country. Coal slurry systems might use much of that underground water as a means of transportation in coal slurry pipelines. This is why Farm Bureau is concerned that any federal legislation dealing with coal slurry pipelines must respect state water laws.

As far as water compacts between the states are concerned, we believe that every effort must be made to ensure protection to individual states without the necessity of resorting to costly litigation. Legislation could be enacted that would provide a credit to one state for the water that is transported to the other state.

On November 16, 1981, President Reagan stated his position on legislation concerning coal slurry pipelines. In a memorandum to the Secretary of Interior, the President said, "...coal slurry pipelines may be an efficient and cost-justified way to move coal and they should be allowed to compete on their own merits as contributors to improving America's energy situation. I recognize that there may be significant problems in right of way acquisition; however, this Administration will not support legislation which has been introduced in Congress to provide a federal right of eminent domain to override these difficulties."

Farm Bureau supports the President's position with respect to coal slurry pipelines because we believe that such decisions about eminent domain can, and should, properly be made by the states involved.

Mr. Chairman, we appreciate the opportunity to present the Farm Bureau's views on the question of coal slurry pipelines.

The CHAIRMAN. Thank you very much.

And last, but certainly not least, Mr. McCormick.

STATEMENT OF JOHN L. McCORMICK, ENVIRONMENTAL POLICY CENTER, WASHINGTON, D.C.

Mr. MCCORMICK. Thank you. It's a pleasure to appear before you this afternoon to offer the Environmental Policy statement. This marks the 10th opportunity we've had to testify on this issue.

There are a number of concerns that the center has voiced over the last 9 years. They range from the potential uses that we see in the financial arrangements between the coal companies, the electric utilities and the owners of pipelines; issue of pipeline safety if other than water is used as the medium to slurry the coal; the cleanup; and the discharge of the waste water after it has been separated from the slurry. I think this is an issue that deserves a good deal more attention because our understanding is the technology to treat the water sufficiently to discharge it into streams and rivers in order that it comply with the Federal Water Pollution Control Act, haven't been demonstrated to our satisfaction.

We feel that the technologies still state that it is relying upon evaporation.

Mr. Chairman, when we get right down to the politics of this issue it comes down to two issues. Using the Federal powers of eminent domain to condemn private land and second the concern the western governments have that with a finding of the pipelines in the national interest, they therefore lose their handle on it, or their ability to control the State water.

In the first instance, Mr. Chairman, we agree that railroads might pose some barrier to the construction of the coal slurry pipelines. In the case of the Transportation Systems Incorporated Pipeline, they were forced to challenge the railroads in 66 court cases and won 65. We think that's an unnecessary burden to pose on coal slurry pipelines and we feel the easiest way to deal with that would be to amend the Interstate Commerce Act wherein the Interstate Commerce Commission would guarantee an easement across competing modes of transportation where the transportation modes seeking that easement offers some net benefit to the public.

I realize that might take this issue out of the committee's jurisdiction, but I think it's a far more equitable way to deal with that problem than condemning the private lands. Let the slurry pipeline proponents or project proponents seek easement across private lands and State lands through the various State statutes. And again, not seeking an easement through Federal legislation.

On the point of the finding that the pipeline is in the national interest and that jeopardizing the States' ability to terminate a contract for water to the pipeline, we are in full agreement with Governor Ed Herschler and Governor Dick Lamm of Colorado that the issue will be before the Supreme Court despite any language this Congress tries to add to the water protection section of this bill.

I think there is no way to get around it, Mr. Chairman. We're talking about an amendment to the Commerce clause of the Constitution if we want to satisfy [illegible] western Governors that forever more they will not be challenged if the Federal eminent domain is provided.

The *Sporhase* versus *Nebraska* case and now *Nebraska* versus *United States,* I think is the telling blow for this legislation because if I were a western Senator I certainly wouldn't want to take a vote on this legislation prior to the Supreme Court making a decision on that landmark case. And I'm talking about States' ability to prohibit interstate export of its water and the Supreme Court possibly ruling that it's unconstitutional. I think it would change the whole ball game on western water law and I would hope that this committee would delay any consideration of this legislation until the Supreme Court has made its decision.

And with that, Mr. Chairman, I will conclude my statement.

[The prepared statement of Mr. McCormick follows:]

ENVIRONMENTAL POLICY CENTER
317 Pennsylvania Ave., S.E., Washington, D.C. 20003
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TESTIMONY OF JOHN L. McCORMICK

BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

ON S. 1844; "COAL DISTRIBUTION AND UTILIZATION ACT OF 1981"

MAY 10, 1982

Mr. Chairman and and Members of the Committee,

It is a pleasure to appear before you this morning to offer the views of the Environmental Policy Center on this legislation. The Center has followed the debate on coal slurry pipeline legislation since 1974 when the Senate considered S. 3879. Since then, the Center has provided testimony before the Senate and House on nine occasions on which this matter was deliberated.

Throughout the deliberations, the Center has maintained the view that coal slurry pipelines may, under certain circumstances, be preferrable to the construction of other modes of coal transportation. One case in point is the presently operating Black Mesa coal slurry line delivering coal from the Black Mesa coal strip mine in North Central Arizona to the Mohave electric generation power plant in Bullhead City, Nevada. To have constructed a new railroad system between the mine and plant would have required extensive surface damage to the land in a region of the country where reclamation of disturbed vegetation cannot be assured due to the arid climate and minimal topsoil. That line continues to operate reasonably well, though, it did suffer a major rupture several years ago which resulted in considerable loss of unretrieved coal and slurry water. At its terminus, the pipeline poses a growing problem of wastewater disposal which the utility has chosen to remedy by expanding its evaporation pond capacity. This issue will be discussed in detail further in this testimony.

The arguments surrounding this and similar coal slurry pipeline legislation are legend by now. Certainly, this Committee has heard variations on the same concerns for almost a decade. This testimony will not discuss, in detail, most of those matters. Instead, the central points of contention regarding S. 1844 will be the primary focus. And, as most of us know by now, they are the granting of the Federal powers of eminent domain to qualified coal slurry pipeline projects and the assurance to Western States' governors that their water rights will be protected. This is not to diminish the possible environmental, economic and labor-displacement concerns woven into this debate. Each of those problems must be addressed during the permit approval process required of a pipeline project prior to construction. No project will reach that plateau, however, unless it has first been judged to be in the Nation's interest to build the line. Having been so determined, the project sponsor can then acquire rights-of-way over, under, upon, or through private lands by the exercise of the power of Federal eminent domain. It is from this point, the serious politics of the issue of coal slurry pipelines flow.

Eminent domain has been defined as the power of the sovereign to take property for public use without the owner's consent upon making just compensation to him. The predominate concept of eminent domain is that it is an inherent power necessary to the very existence of the government. It exists in absolute and unlimited form but there are jurisdictional, constitutional and statutory limitations upon its use. The Federal government can exercise eminent domain powers against State lands but the States cannot exercise such powers against Federal lands without the consent of the U.S. government. Two basic limitations upon the use of the powers of eminent domain are that the owner of the condemned land must be paid a just compensation and the power must be exercised for a public purpose.

If a pipeline originates in a State wherein the coal is delivered to supply an industrial or electric utility need, it is easy to quantify the benefits that State might derive. It is another matter entirely when a pipeline merely traverses a State without receiving or delivering coal. Regardless of the consequences to that State, however, S. 1844 would provide condemnation power to the pipeline project for the purpose of crossing State and private lands.

The findings imposed upon interstate coal slurry pipeline proposals, as deliniated in S. 1844, are so general as to allow any slurry pipeline sponsor to qualify for the Federal powers of eminent domain. The National interest test requires that the pipeline promote competition, help meet national coal distribution needs, contribute to the displacement of imported oil and be no more environmentally destructive than other coal transportation modes. Since some of these findings would be subject to speculative opinion and not subject to judicial review or public scrutiny, it would appear the easiest task of the project proponents would be the receipt of the federal condemnation rights.

From its earliest visit to Capitol Hill, the steadfast justification for this legislation has been the resolution of the railroads' monopolistic barrier to slurry pipeline construction by refusal to negotiate an easement over the rail right-of-way. The Energy Transportation Systems, Inc. pipeline project, stretching from Gillette, Wyoming to Arkansas, and Louisiana, was forced to resort to expensive litigation to secure its route over 66 railroad rights-of-way. By winning 65 of its cases, it pieced together a route which crosses rail lines situated above lands which the railroad did not own. This is a prevalent situation among Western railroads; in contrast to railroads in the East which have purchased their rights-of-way over the years.

It is evident that railroad companies pose disincentives and outright barriers to slurry competition and this condition should be resolved by federal legislation and not by repeated court challenges. However, the use of Federal condemnation powers affecting all interests in the path of a proposed slurry pipeline merely to secure access over railroad lands is a clear example of legislative overkill. This remedy creates further problems and brings into being, political pressures which have pitted themselves against the passage of this legislation from the outset. It is the granting of that federal power which Western governors in Wyoming, Montana, and Colorado interpret as the point at which a State's right to govern its water laws is severed.

A more prudent solution - and one the Environmental Policy Center will support - would be the amendment of the Interstate Commerce Act wherein the Interstate Commerce Commission would be authorized to assure easement over rights-of-way for legitimate competing modes of transportation. The I.C.C. could make a finding that such guaranteed easement was necessary to complete the project; would not result in significant economic harm to the targeted transportation system; and competition would be promoted. Upon making such findings, the Commission would determine a fair compensation for the easement and, upon notification of payment of that amount, the easement would be granted.

This approach places the issue of competition among transportation systems before a government entity best equipped to make a decision which takes into account all factors relevant to a sound National transportation policy. The I.C.C. has the technical expertise and the arbitration experience necessary to assure that all economic interests are protected and that the public's needs will be addressed beyond the scope of energy policy.

The slurry pipeline project would then seek a right-of-way across Federal lands by exercising rights pursuant to the Federal Land Policy and Management Act of 1976. That law authorizes the Secretary of the Interior and the Secretary of Agriculture to grant rights of way over public lands and national forest lands (except wilderness lands) for "pipelines, slurry and emulsion systems... for transportation of solid materials and facilities for storage of such materials." Section 503 of the act requires the Secretaries, to the extent practical, to establish right-of-way corridors. Public lands are defined as those lands of the U.S. administered by the Bureau of Land Management but do not include Indian lands.

As to Indian lands the Secretary of the Interior has been given the authority to grant rights of way for all purposes. The right of way for the Black Mesa coal slurry pipeline on the Navajo Indian Reservation was acquired pursuant to this authorization.

Pursuant to S. 1844, a coal slurry pipeline right-of-way could be acquired across private and state lands by exercising federal powers of eminent domain despite the fact that state has an eminent domain law which might, otherwise, be used. To date, twenty states have enacted laws which, in one form or another, provide a means for acquisition of a route for a slurry pipeline across private and state lands. Though these statutes may differ in many respects, they represent the efforts of state legislatures to protect the interests of the citizens. Reflecting the particular needs of the individual states to protect scarce water resources from exploitation which provides no benefit for the citizens of that state, some laws expressly forbid the export of water in slurry pipelines.

Section 4(c) of S. 1844 includes the sentence:

> "The practice and procedure in any action or proceeding to acquire rights-of-way under this section in a district court of the United States shall conform as nearly as may be practicable with the practice and procedure in a similar action or proceeding in the courts of the State where the property is situated."

While that language and the remaining provisions of that section or the entire bill do not require that coal slurry pipeline sponsors exercise federal powers of eminent domain, it goes without saying that the slurry pipeline interests will go directly to the Secretary of Energy and ignore the States.

Western states governors are under no illusions that they can protect themselves if this law is passed. And, several governors have consistently voiced their opposition before this Committee in previous hearings. The American Farm Bureau shares their concerns and voted a resolution in January of 1981 which recommends that Federal legislation dealing with coal slurry pipelines should respect state water laws and state laws concerning property rights and eminent domain procedures. According to S. 1844, it will be the Federal District Courts which decide how to protect state water laws and state property rights. They will interpret the right of a state to prohibit the export of a state's water in a coal slurry pipeline.

Western water law is an art form unto itself. There are few legal issues in the United States which have attracted as much attention or generated as much emotion as the resolution of disputes among Western states with regard to the ownership, apportionment, management, and use of the increasingly scarce water resources. Those of us living in the Eastern states cannot grasp the significance of the vital importance of groundwater in the Western and West-central states until we see the massive irrigation farms in Kansas, Colorado, Montana, Utah and Arizona which are primarily dependant upon groundwater. This Committee has been dealing with the problems of water availability in the arid western states since the passage of the Reclamation Act of 1902 and there is no need to belabor the point about the need to protect each state's ability to prosper and expand through the more efficient use of their water resources. As proposals such as S. 1844 are offered to the Congress, they represent a new variable in the tenuous game of Western water law and all the players must be assured that new Federal laws cannot be used against those states where water is concerned.

Supreme Court decisions may also jeopardise western states' ability to protect the waters under their individual control. One such case is before the U.S. Supreme Court at this time and an opinion is expected later in the year. Pending in the case of Sporhase v. Nebraska, No. 81-613 (U.S., argued March 30, 1982) is the question of the constitutionality of state statutes regulating the diversion or "export" of water from the state.

In Sporhase, the source of water is the Ogallala aquifer, which underlies states from South Dakota to Texas. The appellants, who own adjacent parcels of land in Colorado and Nebraska, initially attempted to obtain Ogallala water in Colorado to irrigate lands on their Colorado property. The Colorado Groundwater Commission denied the appellants' permit request concluding, pursuant to state procedures, that the aquifer in that area was already being depleted by parties in prior rights, and that additional pumping would lead to an unacceptable decline in water tables. The appellants then began pumping water from their Nebraska lands without a permit. They transported that water across the state line to their Colorado land. They were subsequently enjoined by the state of Nebraska from "exporting" the water. The Nebraska statute would preclude them from obtaining a permit in any event because Colorado has no reciprocal provision (i.e., export of Nebraska water is conditioned on reciprocity, protecting against diversions of in-state groundwater to neighboring states that prohibit exports of their waters to Nebraska).

If the Supreme Court rules against the Nebraska Supreme Court decision to prohibit the export of Nebraska's water, the legal precedent may have frightening consequences for other Western states which have enacted similar statutes prohibiting export of water. For this is the central, political point of contention in this legislation; the Federal override of state laws which prohibit water exports or give states the power to set terms and conditions on the export of state waters.

An essential finding in this case was the Nebraska Court's ruling that since groundwater in Nebraska is not an article of commerce, the commerce clause of the U.S. Constitution does not apply in this case. In the words of the court:

> "The term "commerce" implies that the commodity must be capable of being reduced to private possession and then exchanged for goods or services of the same or similar economic value. An analysis of Nebraska case law and statutes demonstrated that Nebraska law has never considered groundwater to be a market item freely transferable for value among private parties, and therefore not an article of commerce."

Wyoming and Montana have similar laws requiring legislative consent for an appropriation of water within the state for beneficial use outside the state. Utah has empowered the State Engineer to grant permits to appropriate water from an interstate stream within Utah for use in a state bordering Utah.

Some interstate compacts also contain restrictions upon exportation of water from the area affected by the compact. Significantly, the Yellowstone River Compact requires unanimous approval of the three signatory states - Montana, Wyoming, and North Dakota - for exportation of water from the Yellowstone River system out of the Yellowstone Basin.

Coal slurry pipeline proponents have stated repeatedly that the waste water separated from the slurried coal upon delivery to the electric generation power plant could be treated and used as cooling water in the plant. Since the treatment of the water may be technically difficult and expensive, other options may be considered; such as disposal or permanent storage (the waste water of the Black Mesa slurry pipeline is being stored in evaporation ponds). If the pipeline company agrees to sell the waste water to the power plant, the water then becomes a "marketable good"; it will have a value and be considered a "commodity". This would create a unique situation in many Western states where water has never been considered a "commodity" to be traded in commerce.

When Montana State Representative John Scully testified before the House Interior and Insular Affairs Committee on this issue on September 12, 1979, he cautioned the Committee on this very fact when he stated:

> "If you look historically to water in the past, you find that water has not been treated as a commodity. It has not been treated as a transportation medium. It has not been treated as an item of interstate commerce. It has been treated as a resource of the state, held in trust of the state the benefit of its people and the use thereby."
>
> "you are going to change the basic legal structure of water when you change to a coal slurry pipeline transportation system. It will become a transportation system immediately and, thereby, under the direction and control.... of the commerce clause."
>
> "So, if you intend to protect the States' rights to water use, in terms of glossy language in this bill, rest assured you cannot."

You can interpret his concerns as a warning or a plea. But, the enactment of S. 1844 will silence his arguments until his state and the other Western states take their complaint to the Supreme Court. The Western states cannot allow the sweeping changes in water law which this bill authorizes.

Section 4 of S. 1844 requires the Secretary of Energy to make a finding that a proposed coal slurry pipeline project will serve a national need and is in the national interest. With the broad qualifications needed to be so determined, any pipeline project sponsor will pursue this federal blessing. Once having been sanctioned as a project built in the Nation's interest, it will be impossible for a governor to affect the operation of the pipeline if the need arises. Take for example, a state water contract negotiated between the state and the pipeline company which allows the state to interrupt the water supply in the event that continued water mining poses a detriment to the State's economic interests. Despite the fact this bill claims to provide the states this right, the ultimate interpretation of the legality of the state's action rests with the U.S. Supreme Court. Here again, we find case law which raises the argument that Congressional intent may not be sufficient to assure the Western governors of the protection they demand.

In First Iowa Hydroelectric Cooperative v. Federal Power Commission, 328 U.S. 152 (1946), the Supreme Court held that despite specific provisions in the Federal Water Power Act protecting state laws from being superseded and requiring compliance with state procedures, Iowa's licensing requirements for dam construction and operation were preempted. Reasoning that the Federal government, through the legislation, sought to promote the development of national water sources, the Court significantly restricted the "preservation of states' rights" clause because the state procedures in question frustrated Congress' overall policy objectives. In a sense, the case before the Supreme Court may revolve around the state's willingness to shut off waters to the slurry pipeline to protect the interests of several hundred ranchers in the vacinity of the pumping stations supplying the water to the pipeline. The counter argument by the pipeline sponsors will portray the great economic harm to millions of electric utility customers at the end of the pipeline if the water supply is interrupted. Clearly, the Court will have to rule in favor of the pipeline since the state's action will result in a serious economic impact on interstate commerce.

With regard to environmental impacts of coal slurry pipeline construction and operation, it may be the case that construction of a pipeline will cause less impact upon the land than would construction of a new railroad right-of-way. That is not to say that slurry pipelines are environmentally superior to railroad delivery of coal.

One of the more serious environmental impacts of slurry pipeline operation may be the difficulties in the discharge of the waste water separated from the slurry mix. Not only will the waste water be saturated with fine coal particles, heavy metals, trace elements and acid-producing compounds are also present. Chemicals used to prevent corrosion in the pipeline and those used to remove fine coal particles from the waste water may require additional treatment not yet perfected.

The only example of waste water treament of slurry water can be observed at the Mohave power plant but it offers little assurance that sufficient treatment is technically and economically feasible. Instead of treating the contaminated water, it is shunted into settling ponds 130 acres in size and ten feet deep. Because land costs are low and water evaporation rates so high at the Mohave Power Plant, the utility company merely expands the settling ponds to accommodate the increaing amounts of waste water unfit for discharge into a nearby river.

This technique will not work for the Eastern coal slurry pipeline planned for delivery of Illinois coal to Florida. There land is at a premium and the climate is anything but conducive to evaporation of untreated water. Therefore, expensive treatment with chemicals which, themselves, might need additional treatment will become a necessity. Nothing to date (except the continued assurance of the pipeline sponsors that no water pollution will result) can assure the Environmental Policy Center that this important aspect of the pipeline's operation has been resolved.

However, the Center views existing water pollution laws as adequate protection against this problem if they are not overridden by authorities granted in a law such as being proposed in S. 1844. The Federal powers of eminent domain, based upon a national interest finding are unnecessary and invite other dangers to the States. We urge that you reject S. 1844.

The **Chairman**. Thank you very much.

One issue that has not been raised before in these hearings and you have raised it in your statement as a matter of interest, at least to myself, and that is the quality of the water after the separation of the coal. I would invite whatever evidence, whatever information you can provide to us, and unless you're ready to make some statement about it at this time, any one of the three witnesses. First you, Mr. McCormick.

Mr. **McCormick**. As I mentioned in my testimony, the Black Mesa coal slurry pipeline terminating at the Mohave powerplant provided a technical problem for the utility in that they couldn't discharge the water once it had been separated from the coal. The water carried a tremendous amount of iron particulates and the company chose to use settling ponds, rather than to continue treatment of that waste water in an effort to discharge it. If that pipeline were ending in a humid climate such as Florida or Georgia, I think the idea of an evaporation pond would be out of the question.

The **Chairman**. Eastern coal would present another problem because there's a lot of free sulfur and that sulfur might be in the solution.

Mr. **McCormick**. It would pose a potential acidification problem in that waste water. We just haven't seen any demonstrated proof, Mr. Chairman, that the proponents of the slurry pipeline operation can treat the waste water for the contaminants associated with the coal, but also treat the waste water to remove any chemicals added in the operation of the pipelines such as anticorrosives or even chemicals to treat the waste water in the first place.

The **Chairman**. Do either of the other witnesses have knowledge concerning that water quality question?

Mr. **Miller**. No, sir.

The **Chairman**. If you have any knowledge I would invite you to submit it for the record. We'll be soliciting comments from others with respect to that issue.

I appreciate your statements, each of you, and I think with those statements I will conclude our hearing today. We have another hearing on the same subject on May 20.

With that, the committee stands in recess.

[Whereupon, at 4:20 p.m., the hearing was recessed.]

COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

TUESDAY, JUNE 8, 1982

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 9:35 a.m., in room 3110, Dirksen Office Building, Hon. Malcolm Wallop, presiding.

Present: Senators Wallop, McClure, Johnston, and Bumpers.

Also present: Gary Ellsworth, counsel; and Linda Mason, professional staff member for the minority.

OPENING STATEMENT OF HON. MALCOLM WALLOP, A U.S. SENATOR FROM THE STATE OF WYOMING

Senator WALLOP. Good morning. There are some witnesses who are not yet here, but we will, in the interest of time, get on with it, and as the Senators arrive, we will have them give their testimony when they do.

It is a pleasure to be here this morning and chair this subsequent hearing on S. 1844, the Coal Distribution and Utilization Act of 1981, and particularly to address the adequacy of the State water law protections in the bill. I am very grateful to Chairman McClure for granting my request to hold this additional hearing as the followup to the one held on May 10, and I would also like to extend my thanks to Senator Johnston for his sensitivity to my concerns and his leadership in making this bipartisan effort.

As every Westerner, I am deeply concerned about my State's ability to protect and control the use of its water resources. It has been said that water is the most serious long-range problem now confronting the Nation, potentially more serious than the energy crisis. The problem has already reached serious proportions in the arid West, and as I mentioned in my hearing statement on May 10, energy development of any kind is a burden on Western water. Relative to other large consumptive uses of water such as coal gasification or thermal electric generation, coal slurry requires considerably less water per ton of coal. Nonetheless, coal slurry pipelines are water intensive and each ton of coal requires on average 250 gallons of water. Clearly the cumulative impacts of energy development on any State's water are potentially devastating.

This brings us to the subject at hand, S. 1844, legislation intending to give coal slurry pipelines the right of Federal eminent domain through private lands for pipeline rights-of-way. Historically water has been treated by the courts as a resource of the State, held in trust for the benefit of its people. While it is a way of transportation or a means of transportation, water has not been considered as a transportation medium. However, when placed in coal slurry pipeline transportation systems, I believe that the consensus of opinion of legal scholars would be that it transforms into an article of commerce and is thereby subject to the restrictions placed on States by the commerce clause in the Constitution.

It is the intention of the water language found in S. 1844 that the commerce clause restrictions be totally inapplicable to water used in coal slurry pipelines by Federal delegation of the commerce clause power to the States. However, I must repeat it is imperative that any protective State water language which deals with interstate commerce be crafted to leave nothing to the imagination of any court in the land. Specifically I think the provision must first insure that nothing in the law can be construed or inferred to grant the United States or its agents a new right to use water.

Second, to insure that the use and appropriation of water for any interstate coal slurry pipeline, not just those that use the right of Federal eminent domain, be made pursuant to the State of water origin.

Third, to insure that if a State exercises conditions on any water permit pursuant to its law, up to and including termination, that that exercise will not be prohibited, prohibited as an unreasonable burden on interstate commerce or be considered a taking without compensation.

Fourth, to insure that Federal intervention in the State water law is precluded even by inference, and that nothing in the law shall alter in any way any provision of any State law or interstate compact.

And fifth, insure that no Federal reserved water right is created by the act and that no Federal reserved water can be used in any slurry pipeline.

On May 26, I introduced amendments to sections 4 and 6 of S. 1844 which I include for the hearing record with my statement, and these amendments fulfill those demands, first, to require full compliance with State water law before an application for eminent domain can be entertained by the Federal Government; second, to make it clear that the law of the State to be complied with is the State or States of water origin and not any State that the pipeline traverses; third, to extend the protections of the State water law provision to all coal slurry pipelines and not just those that seek eminent domain; and fourth, expressly provides, to remove any possible question, that nothing in the act creates any Federal reserved water rights nor authorizes the slurry pipeline to use federally reserved water in its pipeline.

I urge our witnesses today to analyze the legal effects of these amendments in their analyses of the protective water language already in S. 1844, and I encourage them to explore all alternatives.

I seek not a predetermined position or opinion, but the best independent judgment of our witnesses whose talents, so diverse, are all widely recognized as experienced and competent, and today's hearing record will remain open 2 weeks after today. Statements may be submitted to this committee in Room 3102 of the Dirksen Office Building.

I have a letter as well as the amendments to place in the record—first a statement of Senators McClure and Danforth on S. 1844, and a letter to Senator Goldwater from Mr. Northcutt Ely discussing the provisions of section 6 in the bill on the slurry pipeline. We will insert those in the record.

[The material follows:]

STATEMENT OF
SENATOR MALCOLM WALLOP
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
HEARING ON S. 1844
THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981
JUNE 8, 1982.

SENATOR WALLOP. GOOD MORNING AND WELCOME. IT IS A PLEASURE FOR ME TO BE HERE THIS MORNING TO CHAIR THIS HEARING ON S. 1844, "THE COAL DISTRIBUTION AND UTILIZATION ACT OF 1981", AND PARTICULARLY TO ADDRESS THE ADEQUACY OF THE STATE WATER LAW PROTECTIONS IN THE BILL. I AM VERY GREATFUL TO CHAIRMAN MCCLURE FOR SO GRACIOUSLY GRANTING MY REQUEST TO HOLD THIS ADDITIONAL HEARING AS A FOLLOW UP TO THE ONE HELD MAY 10, 1982. I WOULD ALSO LIKE TO EXTEND MY THANKS TO SENATOR JOHNSTON FOR HIS SENSITIVITY TO MY CONCERNS AND HIS LEADERSHIP IN MAKING THIS A BIPARTISAN EFFORT.

LIKE EVERY WESTERNER, I AM DEEPLY CONCERNED ABOUT MY STATE'S ABILITY TO PROTECT AND CONTROL THE USE OF ITS SCARCE WATER RESOURCES. IT HAS BEEN SAID THAT, "WATER IS THE MOST SERIOUS LONG-RANGE PROBLEM NOW CONFRONTING THE NATION--POTENTIALLY MORE SERIOUS THAN THE ENERGY CRISIS." THE PROBLEM HAS ALREADY REACHED CRITICAL PROPORTIONS IN THE ARID WEST. AS I MENTIONED IN MY HEARING STATEMENT MAY 10, ENERGY DEVELOPMENT OF ANY KIND IS A BURDEN ON WESTERN WATER. RELATIVE TO OTHER LARGE CONSUMPTIVE USES OF WATER, SUCH AS COAL GASIFICATION OR THERMAL ELECTRIC GENERATION, COAL SLURRY REQUIRES CONSIDERABLY LESS WATER PER TON OF COAL. NONETHELESS COAL SLURRY PIPELINES ARE WATER-INTENSIVE AND EACH TON OF SLURRIED COAL REQUIRES, ON THE AVERAGE, 250 GALLONS OF WATER. CLEARLY THE CUMULATIVE IMPACTS OF ENERGY DEVELOPMENT ON A STATE'S WATER IS POTENTIALLY DEVASTATING.

THIS BRINGS US TO THE SUBJECT AT HAND, S. 1844, LEGISLATION INTENDING TO GIVE COAL SLURRY PIPELINES THE RIGHT OF FEDERAL EMINENT DOMAIN THROUGH PRIVATE LANDS FOR PIPELINE RIGHTS-OF-WAY. HISTORICALLY, WATER HAS BEEN TREATED BY THE COURTS AS A RESOURCE OF THE STATE, HELD IN TRUST FOR THE BENEFIT OF ITS PEOPLE. IT HAS NOT BEEN CONSIDERED AS A "TRANSPORTATION MEDIUM." HOWEVER, WHEN PLACED IN A COAL SLURRY PIPELINE TRANSPORTATION SYSTEM, I BELIEVE THAT THE CONSENSUS OF OPINION BY LEGAL SCHOLARS WILL BE THAT IT TRANSFORMS INTO AN ARTICLE OF COMMERCE, AND IS THEREBY SUBJECT TO THE RESTRICTIONS PLACED ON THE STATES BY THE COMMERCE CLAUSE OF THE CONSTITUTION. IT IS THE INTENTION OF THE WATER LANGUAGE FOUND IN S. 1844 THAT THE COMMERCE CLAUSE RESTRICTIONS BE TOTALLY INAPPLICABLE TO WATER USED

IN COAL SLURRY PIPELINES BY FEDERAL DELEGATION OF THE COMMERCE CLAUSE POWER TO THE STATES. HOWEVER, TO REPEAT MYSELF, IT IS IMPERATIVE THAT ANY PROTECTIVE STATE WATER LANGUAGE WHICH DEALS WITH INTERSTATE COMMERCE BE CRAFTED TO LEAVE NOTHING TO THE IMAGINATION OF ANY COURT IN THE LAND. THE PROVISION MUST:

1. INSURE THAT NOTHING IN THE LAW CAN BE CONSTRUED OR INFERRED AS GRANTING TO THE UNITED STATES OR ITS AGENTS A NEW RIGHT TO USE WATER;

2. INSURE THAT THE USE AND APPROPRIATION OF WATER FOR ANY INTERSTATE COAL SLURRY PIPELINE, NOT JUST THOSE THAT USE THE RIGHT OF FEDERAL EMINENT DOMAIN, BE MADE PURSUANT TO THE STATE OF WATER ORIGIN;

3. INSURE THAT IF A STATE EXERCISES CONDITIONS ON ANY WATER PERMIT, UP TO AND INCLUDING TERMINATION, THAT THAT EXERCISE WILL NOT BE PROHIBITED AS AN UNREASONABLE BURDEN ON INTERSTATE COMMERCE OR BE CONSIDERED A TAKING WITHOUT COMPENSATION;

4. INSURE THAT FEDERAL INTERVENTION INTO STATE WATER LAW IS PRECLUDED EVEN BY INFERENCE AND THAT NOTHING IN THE LAW SHALL ALTER IN ANY WAY ANY PROVISION OF STATE LAW OR INTERSTATE COMPACT; AND

5. INSURE THAT NO FEDERAL RESERVE WATER RIGHT IS CREATED BY THE ACT, AND THAT NO FEDERAL RESERVE WATER CAN BE USED IN ANY SLURRY PIPELINE.

ON MAY 26, 1982, I INTRODUCED AMENDMENTS TO SECTIONS 4 AND 6 OF S. 1844, WHICH I INCLUDE FOR THE HEARING RECORD. THESE AMENDMENTS (1) REQUIRE FULL COMPLIANCE WITH STATE WATER LAW BEFORE AN APPLICATION FOR FEDERAL EMINENT DOMAIN CAN BE ENTERTAINED BY THE FEDERAL GOVERNMENT, (2) MAKE IT CLEAR THAT THE LAW OF THE STATE TO BE COMPLIED WITH IS THE STATE OR STATES OF WATER ORIGIN AND NOT ANY STATE THAT THE PIPELINE TRAVERSES, (3) EXTEND THE PROTECTIONS OF THE STATE WATER LAW PROVISIONS TO ALL COAL SLURRY PIPELINES AND NOT JUST THOSE THAT SEEK FEDERAL EMINENT DOMAIN, AND (4) EXPRESSLY PROVIDE, TO REMOVE ANY POSSIBLE QUESTION, THAT NOTHING IN THE ACT CREATES ANY FEDERAL RESERVE WATER RIGHTS NOR AUTHORIZES A SLURRY PIPELINE TO USE FEDERALLY RESERVED WATER IN ITS PIPELINE.

I URGE OUR WITNESSES TO THOROUGHLY ANALYZE THE LEGAL RAMIFICATIONS OF THESE AMENDMENTS IN THEIR ANALYSES OF THE PROTECTIVE WATER LANGUAGE IN S. 1844, AND I ENCOURAGE OUR WITNESSES TO EXPLORE ALL ALTERNATIVES.

TODAY'S HEARING RECORD WILL REMAIN OPEN TWO WEEKS AFTER TODAY. STATEMENTS MAY BE SUBMITTED TO THIS COMMITTEE IN ROOM 3102 DIRKSEN OFFICE BUILDING.

AMENDMENT NO. 1641

Purpose: To amend certain provisions of S. 1844, "Coal Distribution and Utilization Act of 1981".

IN THE SENATE OF THE UNITED STATES—97th Cong., 2d Sess.

S. 1844

To facilitate national distribution and utilization of coal.

May 26 (legislative day, May 25), 1982

Referred to the Committee on Energy and Natural Resources and ordered to be printed

AMENDMENTS intended to be proposed by Mr. WALLOP

Viz:

On page 4, line 4, insert after "system,": "who has acquired appropriate State permits and authorizations pursuant to section 6 of this Act,".

On page 6, lines 18 and 19, strike the words, "found to be in the national interest under section 4 of the Act".

On page 6, lines 21 and 22, strike the words, "found to be in the national interest under section 4 of this Act".

On page 6, line 24, strike "State" and insert after "law": "of the State granting such right".

On page 7, line 6, strike "an" and insert "any".

On page 7, lines 7 and 8, strike the words, "found to be in the national interest under section 4 of this Act".

On page 7, line 8, strike "State law" and insert "the law of the State granting such permit or authorization".

On page 7, line 15, insert new provision:

"(d) Nothing in this Act shall create any Federal reserve water right, and no coal slurry pipeline shall be authorized to use any Federally reserved water in any pipeline.".

Amendment No. 1641

S. 1844

JUNE 8, 1982

STATEMENT OF SENATOR MCCLURE
ON S.1844--COAL DISTRIBUTION AND UTILIZATION ACT OF 1981

TODAY THE COMMITTEE WILL BE CONDUCTING A SECOND DAY OF HEARINGS ON S.1844, TO FOCUS ON THE ISSUE OF WATER UTILIZED IN COAL SLURRY PIPELINES. I AM PLEASED TO WELCOME THE ARRAY OF DISTINGUISHED WITNESSES APPEARING BEFORE US AND LOOK FORWARD TO THEIR TESTIMONY. I WILL MAKE ONLY A FEW BRIEF REMARKS, BUT I BELIEVE THEY WILL MAKE MY POSITION ON WATER CLEAR.

AS A SENATOR FROM A WESTERN STATE, I MUST BE CONVINCED THAT THIS LEGISLATION WILL PROTECT AND EXTEND WITH CERTAINTY AND PREDICTABILITY THE ROLE OF THE STATES IN THE ALLOCATION AND USE OF OUR SCARCE WATER RESOURCES. I WOULD NOTE THAT MY POSITION ON THE WATER PROVISIONS OF S.1844 IS IN LINE WITH WELL OVER 100 YEARS OF CONGRESSIONAL POLICY, WHICH CONSISTENTLY DEFERS TO STATE WATER LAW FOR THE CARRYING OUT OF NATIONAL OBJECTIVES. I WILL PERSONALLY INSIST THAT THIS POLICY PERSISTS AND IS STRENGTHENED SHOULD THIS LEGISLATION MOVE FORWARD IN THE LEGISLATIVE PROCESS.

TO THAT END, THE COMMITTEE MUST CAREFULLY CONSIDER THE FULL RANGE OF LEGISLATIVE AND JUDICIAL PRECEDENTS, INCLUDING CASES NOW PENDING BEFORE THE UNITED STATES SUPREME COURT RELATING TO THE EXTENT OF STATE CONTROL OVER WATER RESOURCES. I WOULD HOPE THAT THE HEARING TODAY WOULD HELP TO PROVIDE INFORMATION NECESSARY FOR THIS COMMITTEE--AND THIS SENATOR IN PARTICULAR--TO MAKE INFORMED JUDGEMENTS ON THE ADEQUACY OF THE PROVISIONS OF S.1844 IN RELATION TO THE PROTECTION OF STATE WATER INTERESTS.

STATEMENT OF SENATOR JOHN C. DANFORTH ON S. 1844, "COAL DISTRIBUTION AND UTILIZATION ACT OF 1981,"

before the

Senate Committee on Energy and Natural Resources

June 8, 1982

Mr. Chairman, it is somewhat strange for a Senator from Missouri to come before you to talk about water rights. Situated at the confluence of the Missouri and the Mississippi rivers, my state historically has been more concerned about an excess of water than a lack of it. But the growing scarcity of water has implications even for Missouri, and that is why I am here today.

Because of drought conditions, the Missouri River navigation season was curtailed by three weeks last year. This had adverse effects not only on the navigation industry itself but also on the farmers and other shippers who rely on the river to carry their commerce. The curtailment also gave a whiff of the future if some of the designs on the Missouri River are carried out. More than 3 million people in Missouri depend on the river for their water supply; the threat of low flows in the future is taken very seriously.

An effort was made in the drafting of S. 1844 to protect state water rights. A further effort has been made by Senator Wallop in the form of amendments to the bill. But I am not convinced that they do the job.

It would seem to me that the arguments on this issue at least have left the question open. The First Iowa case is frequently cited as an example of the courts' willingess to disregard congressional protection of state water law; the provisions intended to preserve states' rights may in fact set a precedent for greater federal involvement. Moreover, once a state agrees to grant a water right to a coal slurry pipeline project, it may not have the ability to take it back again -- to preempt that water right if adverse conditions demand it. An unexpectedly severe drought, for example, could make an otherwise desirable energy use totally unacceptable.

But the most worrisome deficiency in S. 1844 is the lack of protection for states that share water sources, whether aquifers, rivers, or reservoirs. The Energy Transportation Systems Inc. pipeline provides a case in point: at first, the sponsors proposed taking water from the Madison formation in Wyoming. Such a development threatened the water of farmers in western South Dakota, and under this bill South Dakota could have done nothing about it. As it turned out, South Dakota offered to sell ETSI water from the Oahe Reservoir on the Missouri River. Now the shoe was on the other foot. South Dakota had protected its farmers, but the downstream states affected by the diversion -- a diversion completely out of the Missouri River basin -- have been ignored. The amount of water to be taken by the ETSI project is not huge by comparison with the annual flow of the Missouri River, but it is not insignificant, either: in last year's drought conditions, it could have shortened the navigation season by another day and a half. It also will preclude the generation of more than 7 million kilowatt-hours of hydropower per year. Yet the downstream states are not protected by S. 1844.

The Missouri River basin comprises 10 sovereign states. The ETSI pipeline has made it clear to many of us that the answer to future water allocations must lie in an interstate water compact. But the impetus given to coal slurry pipelines by S. 1844, with water seen as the resource only of the state from which it is drawn, simply will lead to further rancor and litigation among the states of the basin.

My concern, of course, is with the impact on Missouri. But I would suggest that the more arid, western states must be even more concerned with the possibility of groundwater depletion by one state without any consideration of the impact on its neighbors. A water pricing war between the states is also a threat.

Finally, Mr. Chairman, I must turn to the central issue of this legislation--the question of federal eminent domain. I share the view expressed by the President that "the extension of federal powers of eminent domain should not be taken lightly." Many states have considered and enacted their own legislation providing powers of eminent domain to coal slurry pipelines, and this, in my view, is where the responsibility should lie. As the President put it, "Our commitment to the vitality of state governments should not be abandoned simply because it may at times be inconvenient."

It is not only the railroads who will be surrendering their lands under this legislation: it is also the farmers and the ranchers--private landowners who should be heard through their state legislatures.

As Secretary Watt put it in his testimony on this issue, "I find it ironic that we are making every effort to protect state authority over water, while seriously considering diminishing state authority over the disposition of non-federal lands within their boundaries. Is state authority over land any less worthy of our concern and protection than state authority over water?"

I think not, Mr. Chairman. The powers of federal eminent domain should be reserved for projects of truly critical national significance, and I do not believe that coal slurry pipelines qualify as such. For that reason, and because of the threats this legislation poses to water rights--both those held by the states individually and those shared by aquifers and river basins--I urge that you reject S. 1844.

BARRY GOLDWATER
ARIZ.

United States Senate
WASHINGTON, D.C. 20510

COMMITTEES:
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INDIAN AFFAIRS

May 20, 1982

The Honorable J. Bennett Johnston
United States Senate
Washington, D.C. 20510

Dear Bennett:

You will be interested to know that I have just received a [redacted], one of the nation's distinguished water law experts, concluding that [redacted] by [redacted] protecting state water rights from impairment by Federal action. I would appreciate it very much if you would see that Mr. Ely's letter is submitted for [redacted] at the next scheduled hearing on S. 1844, which I understand will be devoted primarily to the state water law issue.

As you will note from his letter, Mr. Ely was the lead lawyer in the recent Imperial Irrigation District case, in which he won a unanimous Supreme Court decision upholding a water right originating under state law against the claim of interference by the Federal Government. A biographical sketch of Mr. Ely is enclosed.

The fact that a successful and experienced attorney who specializes in the practice of state water law finds the language of your bill to effectively protect and preserve state water law offers strong assurance that your bill is well drafted and safe on this point. I will add that Mr. Ely has informed me that he has no client with a financial interest in any proposed coal slurry pipeline project.

With best wishes,

Barry

[redacted]

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NORTHCUTT ELY
FREDERICK H. RITTS
ROBERT P. PIETROWSKI, JR.
KIRK HOWARD BETTS

May 17, 1982

Honorable Barry Goldwater
United States Senate
Washington, D.C.

Dear Barry:

I have your letter of May 11, 1982, asking my views as to the adequacy and effectiveness of section 6 of your bill, S. 1844, the Slurry Pipeline bill.

Sections 6(a), (b), and (c) of S. 1844 provide as follows:

> "Sec. 6.(a) The United States or its agents, permittees, licensees, or transferees or any interstate coal pipeline distribution system found to be in the national interest under section 4 of the Act shall not reserve, appropriate, use, divert, dedicate, or claim water within any State for an interstate coal pipeline distribution system found to be in the national interest under section 4 of this Act, unless such reservation, appropriation, use, diversion, dedication, or claim takes place pursuant to State substantive and procedural law.
>
> "(b) Pursuant to the commerce clause in article I, section 8, of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions terminating use, on permits or authorizations for the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system found to be in the national interest under section 4 of this Act shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.
>
> "(c) Nothing in this Act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water."

In my opinion, the language of section 6, which is clearly drawn, is adequate to effectively protect and preserve state water law in the administration of the Act.

I understand from Mr. Emerson of your staff your language is attacked by opponents of the bill on the ground that only a constitutional amendment can adequately protect state-derived water rights from impairment by federal action, and that a statute would be ineffective for that purpose, no matter how specifically it recognizes state water law.

This is an astonishing contention, and I regard it as wholly without merit.

It must be recognized at the outset that we are dealing here, not with a bill which purports to proceed in derogation of state water law, but with a bill which proposes to recognize and defer to state law. 1/

Your section 6 would be the latest in a long line of federal statutes, spanning more than a century, which have recognized state water law.

Two recent Supreme Court cases, sustaining such statutes, are dispositive. These are [redacted], and [redacted] I had the honor of arguing the Imperial case.

In California, the Court sustained, under section 8 2/ of the Reclamation Act of 1902, 43 U.S.C. 383, the imposition by the state of California of some twenty conditions in a permit to appropriate water issued to the United States in response to a federal application. These conditions seriously restricted the right to divert, in a number of ways.

1/ The question of whether the United States could take water in defiance of state law is not involved here, and will never arise, unless Congress decides at some future time to destroy the slurry pipelines that it would now authorize, by cutting off their water supply in some way. In that unlikely event, the questions of constitutionality of the taking, and the magnitude of required compensation would be presented.

2/ Section 8 provides:

> "Nothing in [this Act] . . . shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of such sections, shall proceed in conformity with such laws, and nothing in such sections shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof. June 17, 1902, c. 1093, § 8, 32 Stat. 390."

The Court said (p. 653):

> "The history of the relationship between the Federal Government and the States in the reclamation of the arid lands of the Western States is both long and involved, but through it runs a consistent thread of purposeful and continued deference to state water law by Congress."

Indeed, the Court specifically disavowed dicta in earlier cases which would have limited the effect of section 8, saying at page 674:

> "Section 8 cannot be read to require the Secretary to comply with state law only when it becomes necessary to purchase or condemn vested water rights. That section does, of course, provide for the protection of vested water rights, but it also requires the Secretary to comply with state law in the 'control, appropriation, use or distribution of water.'"

Going further, the Court said in California at page 675:

> "The legislative history of the Reclamation Act of 1902 makes it clear that Congress intended to defer to the substance, as well as the form, of state water law. The government's interpretation would trivialize the broad language and purpose of Section 8."

In Imperial, the Court construed section 6 of the Boulder Canyon Project Act, 43 U.S.C. 617(e), which directs the Secretary of the Interior to recognize "present perfected rights."

A "perfected right" had been defined in the Court's decree in Arizona v. California, 376 U.S. 340, as:

> ". . . a water right acquired in accordance with state law, which right has been exercised by the diversion of a specific quantity of water that has been applied to a defined area of land or to a definite municipal or industrial works."

The decree defined a "present perfected right" as those perfected rights existing as of June 25, 1929, the effective date of the Boulder Canyon Project Act.

The decision in Imperial was unanimous. It held that section 6 required the Secretary to deliver water to lands covered by such state-derived water rights, irrespective of their acreage, and thus exempted such lands from the acreage restrictions in the federal reclamation laws, which direct the Secretary not to deliver water to lands in excess of 160 acres per owner. The Court noted:

* * * * *

"In the first place, it bears emphasizing that the § 6 perfected right is a water right originating under state law. In Arizona v California, we held that the Project Act vested in the Secretary the power to contract for project water deliveries independent of the direction of § 8 of the Reclamation Act to proceed in accordance with state law and of the admonition of § 18 of the Project Act not to interfere with state law. 373 US, at 586-588, 10 L Ed 2d 542, 83 S Ct 1468. 21/ We nevertheless clearly recognized that § 6 of the Project Act, requiring satisfaction of present perfected rights, was an unavoidable limitation on the Secretary's power and that in providing for these rights the Secretary must take account of state law. In this respect, state law was not displaced by the Project Act and must be consulted in determining the content and characteristics of the water right that was adjudicated to the District by our decree. 22/

"[The Court's footnotes.]

"21/ In terms of reclamation law generally, the import of the Court's opinion in this respect was considerably narrowed to California v United States, 438 US 645, 57 L Ed 2d 1018, 98 S Ct 2985 (1978), but the latter case did not question the description of the Secretary's power under the Project Act itself.

"22/ While the source of present perfected rights is to be found in state law, the question of whether rights provided by state law amount to present perfected rights within the meaning of § 6 is obviously one of federal law. See Ivanhoe Irrig. Dist. v. McCracken, supra, at 289, 2 L Ed 2d 1313, 78 S Ct 1174; California v United States, supra, at 668-669, n 21, 57 L Ed 2d 1018, 98 S Ct 2985; 671-673, 678 n 31, 57 L Ed 2d 1018, 98 S Ct 2985."

* * * * *

The opinions in California and Imperial are all the more notable as sustaining legislative directives (like those in your section 6) preserving state-derived water rights, because the Supreme Court, in the first Arizona v. California case, 283 U.S. 423 (1931), had held that the United States had constitutional authority to construct and operate Hoover Dam without conforming with the police regulations of a state, and had held, in the latest Arizona v. California decision, 373 U.S. 546 (1963), that the Project Act had intended to vest authority in the Secretary of the Interior to disregard state law in the intra-state selection of contractors for stored water, except only with respect to holders of present perfected rights. In California, the Court "disavowed," as dictum (438 U.S. 674) the limitation stated in Arizona v. California (1963) on the protection accorded state-generated water rights by section 8 of the Reclamation Act.

Opponents of your bill would ask the Congress to proceed as though California v. United States and Imperial Irrigation District v. Yellen had never been decided, and that the deference to state water rights expressed by section 8 of the Reclamation Act and section 6 of the Boulder Canyon Project Act, notwithstanding the Court's enforcement of them, could only have been given effect if embodied in a constitutional amendment.

That objection to your bill is as unsound as it is novel. The western states should be wholly reassured by the language of your section 6. The courts will undoubtedly give it effect, as the Supreme Court did to language deferring to state water rights in section 8 of the Reclamation Act and section 6 of the Boulder Canyon Project Act in the California and Imperial cases, respectively.

Respectfully,

Northcutt Ely
Northcutt Ely

Northcutt Ely

Born in Phoenix, Arizona, September 14, 1903; admitted to bar, 1926, California; 1928, New York; 1932, District of Columbia and U.S. Supreme Court. Preparatory education, Stanford University (A.B., 1924); legal education, Stanford University (J.D., 1926). Fraternity: Phi Delta Phi. Author: "Oil Conservation Through Interstate Agreement, 1933; "The Hoover Dam Documents," 1948; "Summary of Mining and Petroleum Laws of the World," 1st edition, 1961, 2nd edition, 1971-1974; "Authorization of Federal Water Projects," 1972. Co-author: "Law Of International Drainage Basins," 1965; "Economics of the Mineral Industries," 1966. Member: Board of Overseers, Hoover Institution, 1963--; National Petroleum Council, 1970--. Member: The District of Columbia Bar; American Bar Association (Chairman, Section of Natural Resources Law, 1972-1973; House of Delegates, 1974--); Inter-American and International Bar Associations; American Law Insitute (Life Member); American Society of International Law; American Judicature Society; International Law Association (Chairman, Committee on Law of the Sea, American Branch, 1968--; Member, International Committees on Water Resources and Deep Sea Mining, 1968--); Mining and Metallurgical Society of America. Fellow, American Bar Foundation.

Senator **Wallop**. Senator Danforth obviously, since his statement has been inserted, will not be here, and therefore, Senator Zorinsky, my colleague from Nebraska, is the first witness.

STATEMENT OF HON. EDWARD ZORINSKY, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator **Zorinsky**. Thank you, Mr. Chairman, and I appreciate the opportunity to speak today on S. 1844. There are several very important aspects of this bill, but the most important to me and to the State of Nebraska is the issue of water and a State's ability to control the use of surface and ground supplies on and under its land.

There is no doubt that this Nation must find new and additional sources of energy, and the coal slurry pipeline if developed very well might be a part of this solution. There is certainly a need to encourage the increased use of this country's vast coal supplies. If the pipeline can deliver this coal cheaply, efficiently, and with little harm to the environment, then we all benefit, but this must not be at the expense of another sector of our economy which is already facing a number of very serious crises. I am referring to agriculture and its need for what is already a diminishing supply of water.

As you know all too well, water is a critical factor in the battle for survival in Western States. As a recent story in Time magazine pointed out so well, there is already underway such a severe drawdown in the underground aquifers of Nebraska and neighboring States that the future of the whole farm industry is threatened. As the story points out, the Ogallala aquifer that runs from South Dakota all the way to New Mexico is being drawn down so severely that the question is no longer if it will run dry but when it will run dry. The States involved here have been acting together to try to solve the problems of fair and just use of the water. Without this cooperation, the situation would only get worse. I am afraid that if S. 1844 is passed, control will pass from the States to the Federal Government, something that I feel would be very undesirable.

To deal with this decreasing water supply, States are looking at many different ideas, including interstate plans for water use. What the Midwestern States need are new supplies of water and methods to bring this water into the area. To now propose to take water out of this area would be absolutely ludicrous.

I am very concerned that Federal eminent domain would seriously affect an already precarious situation. The negative impact is just so great that it outweighs any benefit that might be felt in other areas. I am not even sure that the Federal eminent domain is necessary. The pipeline now being developed by the Energy Transportation System, Inc., is progressing without this assistance. ETSI has already acquired 80 percent of the land that it already needs.

The supporters of S. 1844 say that the bill protects against the use of Federal eminent domain to acquire water. I would like to be able to believe that, but I am not quite so sure. Recent court rulings could lead one to another conclusion, and I would like to urge this committee to look very carefully at this issue and to go to great lengths to make sure that an already critical situation is not made even worse.

Last year Senator Abdnor of South Dakota and myself along with several other Members of the Senate introduced two bills that would provide that kind of protection that I feel is necessary. The first bill would require a study by the Corps of Engineers to determine whether the use of ground water will affect the quantity or quality of the remaining water. If it does affect quantity and quality, Governors of the affected States would be allowed to deny the issuance of the necessary permits.

The second bill would require the approval of each State whose ground water would be affected before a right-of-way across Federal lands could be granted.

Mr. Chairman, I understand that many people can give protections in tightening up legislation, but having been here about 5½ years, I have seen tightened legislation whose nuts and bolts came so loose, and one of the items I would just like to specifically point to is last year during the tax cut proposition which I strongly supported it was never envisioned that the safe harbor lease provision of that tax cut provision would become so enormously abused and misused as is currently being done, and so knowing what judicial procedure and processes can do to tie down legislation, it makes me very dubious about our ability and the credibility of the general public in how we are perceived as tightening down legislation.

Besides the water issues, there are several other areas of this legislation for the committee to address. I did not discuss these areas because overriding attention should be given to the water issue. I, therefore, concentrated my attention in that area. I cannot stress strongly enough to this committee how important the water issue is in the Midwestern area of this Nation.

Thank you, Mr. Chairman.

Senator WALLOP. Thank you, Senator. Of course, one of the purposes of this hearing is to address that water issue in detail. I have had an advance look at some of the testimony of people who have studied these matters considerably, and I have no opinion because I have only seen some of them. Clearly I agree with you that the States ought to be able to make their own water decisions under their own water law. That is the case now in Nebraska, is it not? Is it not the case that Nebraska's water law permits it to make its own water decisions?

Senator ZORINSKY. Yes.

Senator WALLOP. What we seek to do in this is to assure that, and on top of it, perhaps overturn a couple of recent court decisions which cast serious doubt as to whether or not those provisions in our various States are indeed constitutional. We may in effect deconstitutionalize some, as one witness will say, some of those provisions. We will hear from a number of people. To the extent you can stay, you might find it interesting. To the extent you cannot, I hope you look at the testimony that we get because that is the judgment that we are here to make.

Nobody, least of all Western Senators, is seeking to take water from agriculture by legislation of this type. It would be intolerable to think of it in that way, but what we are trying to do is to find a means by which those decisions can be made pursuant to State law, and those provisions can stand up in a court.

Senator Johnston?

Senator **Johnston**. Thank you, Mr. Chairman. I want to welcome our distinguished Nebraska colleague to the hearing and tell him that I share his view about the importance of western water, but invite him to look more carefully at this bill and really what it does in terms of giving more protection to States than exists at the present time.

I invite you to look at the issue of the ETSI pipeline which you refer to in your statement. You point out that this bill is probably not necessary as witnessed by the fact that ETSI is able to get water under existing law and ship it without having the right of eminent domain; but are you aware of the real possibility, the real fear of many people in western States that once ETSI gets this water, that it will then be in interstate commerce and then subject to the whole panoply of protections under the commerce laws, subject then to the Federal regulation, and perhaps beyond the reach in part at least of State law? Do you share that fear at all?

Senator **Zorinsky**. Well, I share the fear that if this becomes a reality, the Corps——

Senator **Johnston**. What becomes a reality—ETSI?

Senator **Zorinsky**. Yes. The Corps of Engineers in their wisdom will figure out a way to build a viaduct to take all the water from the Midwestern aquifers and ship it throughout the country, my concern being, Senator, that oil is a precious commodity today, but I think water in the future will even be more of a precious commodity.

Senator **Johnston**. I understand that, but if you will just follow with me on the ETSI pipeline. The point I am making is that under existing law and without this bill, if ETSI is able to get its hands on that water, it will then be classified as interstate commerce, and then perhaps subject to the commerce clause, and subsequently beyond the reach of State law.

Do you agree with that statement as a question of law, or do you share the fear that that is a possibility?

Senator **Zorinsky**. I share the fear of that being a possibility. However, I don't share the fear of that being law because it just seems that the law today is interpreted any way that whoever has got the most clout wants it to be interpreted.

Senator **Johnston**. That is the way it is interpreted right now and the Constitution gives to the Congress the right to regulate interstate commerce. So if we enact a bill with provisions that insure that that water, be it water for the ETSI pipeline or any other pipeline water, is not beyond the reach of the State then we are clearly mandating a situation in which States have the right to regulate their water, a distinct right which they do not currently possess. Would you agree with that?

Senator **Zorinsky**. I agree with that to this extent, Senator, that as part of that bill then we should also make it a mandate that we find out if the water is there for which to provide this bill.

Senator **Johnston**. Who is "we" now, the State or the Federal Government?

Senator ZORINSKY. I feel that the Corps of Engineers or somebody should do a qualified study. We are going to make a big deal out of water, and if it is not there, and if the availability of that water over a long period of time is drawn down to the detriment of agriculture, if it is not physically available and if the recharge capability is not there, I think there is an exercise in futility.

Senator JOHNSTON. You see, you put your finger on a very important issue, and that is who ought to control this water and who ought to say if it is available or not? What we have been hearing here day after day is that the States ought to control the water.

Senator ZORINSKY. I agree with that, Senator.

Senator JOHNSTON. And not the Corps of Engineers.

Senator ZORINSKY. I also agree with that, Senator. I am a strong believer in States rights.

Senator JOHNSTON. Well, I think we are coming around on this bill to a majority opinion. Would you like your name added?

Senator ZORINSKY. Pardon? No, sir. You know, I watched Federal Government take control and take charge, and I don't know. If we like the way the postal system is being handled and the actuarial soundness of social security, we'll love this water bill.

Senator WALLOP. That is what we are trying to do, Senator, in this. You know, absent something like the provisions of this bill, what you fear most is most likely to happen.

Senator JOHNSTON. Exactly.

Senator WALLOP. And unless there is testimony here that I have not read, and that is really the whole point; I am not coming down on one side or the other. I share the feeling that you have, but what is attempted in here is plainly powers and privileges which we do not possess as States, and if we get it, the testimony that we develop here this morning will assure us that we have that privilege as a Congress.

The one thing we are doing is eliminating the thing that you fear most.

Senator JOHNSTON. I would ask my colleague to look at this bill, particularly section 6 on the preservation of State water law. Look at it with an idea to what the present law is, particularly with respect to the ETSI situation and the protection that this bill gives. Consider it and I think you may come around to our way of thinking because we have studied this thing a long time to try to sharpen this water law, and really to give the State adequate protection. We don't want the Corps of Engineers out there telling States how to do it. If you want a study, that's fine.

Senator ZORINSKY. Senator, I guess I just—I was a businessman too long and every time the Federal Government tried to protect me from something, I became very concerned. One day a fellow stopped by from the IRS and told me he was there to help me, and I didn't believe that, either. I appreciate your concerns, and I think they are very valid.

Senator JOHNSTON. All right.

Senator WALLOP. Thank you, Senator. Senator Abdnor has come in. We will hear your testimony now, and I understand he is accompanied by South Dakota's secretary of water and natural resources, Mr. Bob Neufeld.

Senator **Abdnor**. We appreciate your taking me out of order. I do have to go on to another meeting, so I appreciate this very much.

STATEMENT OF HON. JAMES ABDNOR, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator **Abdnor**. Mr. Chairman and Senator Johnston, I commend you for calling this hearing to give particular attention to the vital issue of State water rights in the context of S. 1844, the Coal Distribution and Utilization Act. This issue is indeed vital to the future of the West, and it does merit very careful consideration.

My position on this matter is very simple, Mr. Chairman. If the valid water rights of the State will be affected by a proposed coal slurry pipeline, the Federal Government should not grant the right of eminent domain without the approval of that State. The Federal Government absolutely should not take any action which directly or indirectly diminishes or impairs the right of any State to control the allocation of its water resources.

In the case of ETSI's proposed use of the Madison Formation, existing rights in South Dakota would be affected, perhaps severely. In the case of the use of Lake Oahe, no State can make a similar statement. The diversion from Lake Oahe approved by South Dakota simply will not adversely affect any water right in any other State. Even the opponents of South Dakota's agreement with ETSI acknowledge that fact. They argue instead that the agreement sets a bad precedent for future diversions which would adversely affect other water rights.

In light of the massive quantities of water available in the mainstream reservoirs, if and when future diversions will adversely affect existing uses is debatable. Be that as it may, however, service to existing needs should not be denied on the basis of theoretical future threats to existing uses. Such theoretical threats should be addressed when they become real threats by allowing each and every State whose water rights will be affected to veto Federal actions which could adversely affect those rights. Where there is doubt, we should err on the side of safety and protection of the rights of the States. Once again let me repeat in the case of ETSI's, South Dakota approved diversion in Lake Oahe, there is absolutely no other existing right in any other State which will be impaired. No one has even suggested that there is.

Our downstream neighbors have grown to expect to benefit at our expense. We sacrificed over half a million acres in South Dakota and over a million acres in both Dakotas to provide flood control for our downstream neighbors. These valuable river bottom acreages were permanently inundated by flood control reservoirs in order to provide protection from periodic flooding in downstream States. In return for our sacrifice, we were promised by the Federal Government, and our downstream neighbors agreed, that we would receive large-scale irrigation development to conpensate for the tremendous economic loss we suffered.

It is ironic that the water our downstream neighbors are clamoring about and ostensibly trying to protect is that which has already been allocated to us. Having taken our land, it is apparent that they now want to take our water, too. They have grown accustomed to profiting at our expense, and at the very time it appears we may be able to take a small step to begin to right for ourselves a wrong which has been done to us, they rush in to cry foul. The rules of the game may have been established by the Pick-Sloan plan, and it is the upstream States who have been fouled. The downstream States would now change the rules to legalize the foul; and if there is any justice in America, and I believe that there is, they will not be allowed to get away with it, and now let me issue a challenge to my downstream colleagues and to the members of this committee.

My challenge to you and the downstream States is simple. Be fair and honor the commitments which have been made to the upstream States, particularly to the Dakotas. For this committee that means favorable consideration of legislation designed to begin to honor the long unfulfilled commitment to my State, and it means protecting us against further encroachment through passage of this legislation without adequate attention to State water rights and to prior commitments.

Absent a provision requiring approval of all States whose water rights will be affected, S. 1844 by definition constitutes a clear and unmistakable impairment of the rights of those States since it increases Federal authority while ignoring State authority.

With the lower basin States, being fair means toning down their greed for our resources. It means remembering our sacrifice for their benefit and working to see that the other side of the bargain is upheld. If they will do so, they might be surprised at how much we have in common on these issues. South Dakota does not intend to drain the Missouri dry at Sioux City, and we couldn't if we wanted to.

We have two very clear-cut reasons for entering into our agreement with ETSI. One, protection of the Madison aquifer; and two, replacement of a small portion of the long-promised Federal water development assistance to offset our loss of land which enabled storage of the water in the first place—I trust this committee will do its best to meet the challenge of fairness to the upper Missouri River Basin States, but in all honesty, Mr. Chairman, I sincerely doubt that we can count on the lower basin States to do the same.

Thank you very much.

[The prepared statement of Senator Abdnor follows:]

Honorable James Abdnor
Before the Committee on Energy & Natural Resources
Tuesday, June 8, 1982

Mr. Chairman, I commend you for calling this hearing to give particular attention to the vital issue of State water rights in the context of S. 1844, the Coal Distribution and Utilization Act. This issue is indeed vital to the future of the West, and it does merit very careful consideration.

My position on this matter is very simple, Mr. Chairman: If the valid water rights of a State will be affected by a proposed coal slurry pipeline, the Federal Government should not grant the right of eminent domain without the approval of that State. The Federal Government absolutely should not take any action which directly or indirectly diminishes or impairs the right of any State to control the allocation of its water resources.

Everyone seems to be in agreement on that point insofar as the State of origin is concerned, but it really doesn't matter where the plug is pulled -- if the tub is drained, it is drained. I am referring of course to the original proposal made by Energy Transportation Systems Incorporated (ETSI) to pump the Madison aquifer from wells just across South Dakota's border in Wyoming.

ETSI has shown the good judgment to recognize my State's valid concerns and has agreed to use the abundant supplies of water available in Lake Oahe, rather than the Madison aquifer. We commend them for their consideration of South Dakota's interests. Their agreement with my State for the use of water from Lake Oahe is demonstrative proof that water does not have to be the limiting factor in Western energy development if the right of the States to determine such uses is strictly observed. It is only if outside interests attempt to circumvent the valid rights of the States that they will find themselves in conflict from which they are not likely to emerge successfully.

It should be noted that ETSI was not required in any formal sense even to consult South Dakota despite the fact their pumping of wells immediately adjacent to our border in Wyoming would draw down the water table in our state. They did consult with South Dakota only under the threat of adverse litigation, because we did have a valid case, and because we had a better alternative; namely, the use of Lake Oahe.

I do not argue that the Federal Government should inject its heavy hand to resolve water allocation disputes between or among States, quite the contrary. States should resolve such problems themselves, and where a valid dispute exists, the Federal Government should refrain from taking sides. While ETSI says they do not need federal eminent domain, if the right of eminent domain were to be granted to a coal pipeline using the ETSI permits for withdrawals from the Madison Formation, the Federal Government would in effect be interceding on behalf of the State of Wyoming and against the State of South Dakota. There is no denying that the water rights of my State would be adversely affected, we would have nothing to say about it, and the intervention of the Federal Government would fly in the face of a States' rights doctrine of water allocation.

Clearly, for those who truly adhere to a States' rights doctrine, the Federal Government should take no action which in any way diminishes the ability of any State to control the allocation of its water resources. That is particularly true insofar as a broad, sweeping new statutory authority, like the right of eminent domain, is concerned.

I am aware that others would attempt to apply the same argument to the use of Lake Oahe by ETSI, but a quick glance at the facts will reveal that such arguments are specious. Whereas in pumping the Madison aquifer ETSI would have by some estimates drawn down the water table at Edgemont, South Dakota, by as much as eleven hundred (1100) feet, taking an equivalent amount from Lake Oahe will not even be noticed. The annual evaporation (about 800,000 acre-feet) from Lake Oahe alone is sixteen (16) times the amount ETSI will withdraw. Including the evaporation (1 1/2-2 million acre-feet) from all six of the mainstem reservoirs increases that figure to about forty (40) times the amount ETSI will withdraw.

On that thought, let me take just a moment to give the committee some perspective on the immensity of the six huge Missouri River mainstem reservoirs in the Dakotas and Montana. Four of the dams are in my state. They back up slack water for virtually the entire stretch of the river as it bisects my state. The largest of the reservoirs, Lake Oahe, stretches about 225 miles, from the Capital of South Dakota, Pierre, nearly to the Capital of North Dakota, Bismarck. Two days of hard boating are required to travel its length. The river itself had an 83-year average annual flow of 23.2 million acre-feet at Sioux City, and based upon current depletions, the average annual flow is about 21.4 million acre-feet. Through 1949 annual depletions averaged 3.8 million acre-feet. One million two hundred thousand acre-feet have been added to depletions since 1949, so that the total is now about 5 million in average annual depletions. According to the report, "Water for Energy," issued by the Bureau of Reclamation in December of 1977, 3 million acre-feet is uncommitted, will not be needed for other project purposes, and could be allocated to industrial uses. (The ETSI diversion will be 1/60th of that amount.) In addition the Bureau reported that another million acre-feet is available which is allocated to irrigation but will not be used for that purpose for a period of years. (Including this water means the ETSI diversion will take 1/80th of the amount available for industrial purposes during the period covered by the contract.)

The truly amazing thing about the Missouri by comparison to other rivers, though, is not the average annual flow but the amount of storage available. The availability of this storage permits the controlled release, as needed, of water which otherwise would have flooded and wreaked havoc in downstream states. This storage is available only because the upper basin states sacrificed about 2 million acres for the reservoirs. This storage represents a tremendous national resources but one which has been created only at great loss to the upper basin states. The six mainstem reservoirs have the capacity to store up to 74.4 million acre-feet, over 3 times the total average annual flow of the river! Thus, if the reservoirs were full, the river could be maintained at its average annual flow at Sioux City for 3 years without a single drop of inflow. That is a truly amazing statistic, unmatched, I'm sure, by any other major river system; and in that context, to suggest that the ETSI diversion will significantly and adversely affect any existing water right is simply ludricrous.

It could be argued likewise that a drop in the water table at Edgemont, South Dakota, even a drop of a thousand feet, is not of national importance since the population of the community and the surrounding area is not large. It is beyond question that the water rights of those citizens, granted under the laws of the State of South Dakota, would be affected, however; and in my view determining the significance of the impact is the prerogative of the State. It is not for the Federal Government to tell water users anywhere that an adverse impact on their rights is not significant, nor would it be proper for the Federal Government to take an action -- such as the granting of the right of eminent domain to a coal pipeline -- without due regard to the water rights of any and all affected States. Only the affected State (or States) should be permitted to determine the significance of impacts upon the water rights of its citizens and whether its water should be allocated to coal slurry or any other purposes.

Again, the Federal Government should take no action which affects the water rights of any State without the approval of that State, even if such action impacts only indirectly upon water rights. Whether the impact is directly or indirect, it is the effect itself which is important and with which the local water users will be forced to live. It is just not acceptable for the Federal Government to attempt to excuse itself from considering the water rights of all affected States simply because the impact of the Federal action on their rights will occur indirectly.

Caution upon the part of the Federal Government in protecting State water rights is particularly required in the case of ground water. I would direct to the committee's attention the September 12, 1980, report (CED-80-96) of the General Accounting Office, entitled "Ground Water Overdrafting Must be Controlled." There are significant problems with ground water; and while I do not necessarily concur in all of the report's recommendations, it is clear that every effort should be expended by the Federal

Government in assisting the States to address these problems. Again, it is the States which should address problems relating to ground water rights, but the Federal Government certainly should take no action which directly or indirectly impedes the ability of the States to do so. Granting the right of eminent domain in the face of a clear threat to ground water rights, a threat over which the State of jurisdiction has no control, would not be consistent with a doctrine of States' rights or with the need to guard against excessive ground water withdrawals.

Let there be absolutely no misunderstanding: Requiring the Federal Government to consult with all States whose water rights will be affected is entirely consistent with a doctrine of States' rights. Allowing the Federal Government to ignore the rights of certain states because they do not happen to be the State in which a diversion or withdrawal occurs is not consistent with a doctrine of States' rights. The key is whether a State's rights will truly be affected. If so, the State should be allowed to approve the use of its water, and the Federal Government should not act without such approval. If not, no State should be allowed to be obstructionist in attempting to deny another State the right to allocate its water as it sees fit.

In the case of ETSI's proposed use of the Madison Formation existing water rights in South Dakota would be affected, perhaps severely. In the case of the use of Lake Oahe no State can make a similar statement. The diversion from Lake Oahe approved by South Dakota simply will not adversely affect any water right in any other State. Even the opponents of South Dakota's agreement with ETSI acknowledge that fact. They argue instead that the agreement "sets a bad precedent" for future diversions which will adversely affect other water rights. In light of the massive quantities of water available in the mainstem reservoirs if and when future diversions will adversely affect existing uses is debatable. Be that as it may, however, service to existing needs should not be denied on the basis of theoretical, future threats to existing uses. Such theoretical threats should be addressed when they become real threats, by allowing each and every State whose water rights will be affected to veto Federal actions which could adversely affect those rights, as I have strenuously suggested throughout this statement. Where there is doubt, we should err on the side of safety and protection of the rights of the States. Once again, let me repeat, in the case of ETSI's South Dakota approved diversion from Lake Oahe there is absolutely no other existing right in any other State which will be impaired. No one has even suggested that there is.

The dispute over the ETSI-Oahe diversion results in large part, in my view, from a hidden agenda on the part of downstream States to limit the right of upstream States to allocate their water resources as they see fit and to foreclose the opportunity for the Federal Government to live up to its commitments to the upstream States, particularly the Dakotas, under the Pick-Sloan Missouri Basin Program. This hidden agenda is not new, nor did it arise with the ETSI agreement. It has been in force ever since enactment of the Flood Control Act of 1944 and before.

A little history may help the committee to understand the hidden agenda of the downstream States, and I have provided for your reference a backgrounder, entitled "A Little History Don't Hurt," prepared by the South Dakota Water Congress. In brief, our downstream neighbors have grown to expect to benefit at our expense. We sacrificed over a half million acres in South Dakota, and over a million in both Dakotas, to provide flood control for our downstream neighbors. These valuable river bottom acreages were permanently inundated by flood control reservoirs in order to provide protection from periodic flooding in downstream states. In return for our sacrifice we were promised by the Federal Government, and our downstream neighbors agreed, that we would receive large-scale irrigation development to compensate for the tremendous economic loss we suffered and continue to suffer from the Federal Government's failure to honor its commitments to us.

It is ironic that the water our downstream neighbors are clamoring about and ostensibly trying to protect is that which has already been allocated to us. That they would do so is evidence of how bold they have become in pursuing their "hidden" agenda. Their true intent is becoming more and more transparent; and I have provided the committee an excerpt from the June 15, 1979, Congressional Record which will provide additional insight into the motivations of the lower basin States.

Let me repeat, the water the lower basin States are clamoring about is that which has already been allocated to us. Having taken our land, it is apparent they now want to take our water too. I have provided for the committee's attention the November 27, 1974, memorandum of the Solicitor of the Department of the Interior setting forth the basis for the involvement of the Bureau of Reclamation in industrial water marketing. The committee will note that the Department considers the water to be marketed to ETSI to be a portion of that which is allocated to irrigation but will not be used for that purpose for a period of years sufficient to cover the industrial water service contract. Under the circumstances, the objections of the downstream States constitute a rather blatant attempt to legitimatize their ill-begotten claim to our water. If anyone has a right to be upset about Federal involvement in the approval of this water for use by ETSI, it is the State of South Dakota. Why should the Federal Government have anything to say about water it promised to develop for irrigation in our state but has failed to develop as promised?

The Bureau of Reclamation is proposing to charge ETSI thirty dollars ($30.00) per acre-foot. Why should the Bureau profit from its failure to honor its commitments to my State? Please do not misunderstand: I am not criticizing any individual official of the Bureau or the Department and particularly not the current officials. They have shown every inclination to try to rectify the injustices perpetrated upon my state, subject only to budgetary constraints. Given those constraints, however, is it fair for the Federal Government to be profiting still further at our expense? In fairness, shouldn't every dollar earned through the marketing of our water be used directly to fund water development in my state in fulfillment of the Federal commitment? Again, I am not criticizing any individual or official; but, institutionally speaking, South Dakota is being "taken to the cleaners" once again.

To be sure, South Dakota will benefit from its own agreement with ETSI; but if the Federal Government cannot be trusted to honor its commitments, how on earth can anyone begrudge South Dakota the right to attempt to use our own resources to replace a small portion of that which the Federal Government promised but has failed to deliver? The water is there because we sacrificed mightily to store it so that our neighbors will not be flooded. We were promised not only that we could use it but also that Federal funding would be provided to develop such uses. The equities are as clear as they could possibly be, and both the Federal Government and our downstream neighbors should be ashamed of themselves for the shabby treatment with which the Dakotas have been rewarded for our sacrifice.

In closing, let me just comment briefly on the call for a compact on the allocation of Missouri River water among the States of the basin. As the committee knows, compacts are a means of allocating the limited water resources of a river on which allocations by more than one State may exceed the supplies available. By that standard, there is no need at the present time for a compact on the Missouri. Water supplies far exceed any potential demands for the foreseeable future and, in that sense, imposing a compact at this time would be an attempt to lock into the future a water usage pattern which may prove entirely unrealistic and incompatible with the uses and needs which actually arise. In another sense a compact of sorts is already in effect. It is the water allocation scheme authorized under the Flood Control Act of 1944, which provided for construction of the dams and for the comprehensive river development plan known as the Pick-Sloan Missouri Basin Program.

Insofar as the lower basin States are clamoring for a compact, I strongly suspect their motives are less than honorable. I smell a rat, a river rat which would break the existing, implied compact with the upstream States to feed the greed of those downstream. They have grown accustomed to profiting at our expense, and at the very time it appears we may be able to take a small step to begin to right for ourselves the wrong which has been done to us, they rush in to cry foul. The rules of the game have been established by the Pick-Sloan Plan, and it is the upstream States who have been fouled. The downstream States would now change the rules to "legalize" the foul; and if there is any justice in America, and I believe there is, they will not be allowed to get away with it.

Finally, let me issue a challenge to my downstream colleagues and to the members of this committee. My challenge to you and to the downstream States is simple: Be fair and honor the commitments which have been made to the upstream states, particularly to the Dakotas. For this committee that means favorable consideration of legislation, like S. 1553, which is designed to begin to honor the long unfulfilled commitment to my state; and it means protecting us against further encroachment through passage of legislation, like S. 1844, the subject of this hearing, without adequate attention to State water rights and to prior commitments. Absent a provision requiring approval of all States whose water rights will be affected, S. 1844, by definition, constitutes a clear and unmistakable impairment of the rights of those States since it increases Federal authority while ignoring State authorities.

For the lower basin States being fair means toning down their greed for our resources. It means remembering our sacrifice for their benefit and working to see that the other side of the bargain is upheld. If they will do so, they might be surprised at how much we have in common on these issues. We in South Dakota do not intend to drain the Missouri dry at Sioux City, and we couldn't if we wanted to. We had two very clearcut reasons for entering into our agreement with ETSI: (1) protection of the Madison aquifer and (2) replacement of a small portion of the long-promised Federal water development assistance to offset our loss of land which enabled storage of the water in the first place.

If those concerns are addressed in this and other legislation before this committee, for the first time since 1944 South Dakota will have no good cause to complain and to quarrel with our neighbors in the basin. As it is, we have more than ample cause to be upset. If our downstream friends will be fair, there is no doubt in my mind that South Dakota could easily enter into a compact which is consistent with and ensures implementation of the upstream features of the Pick-Sloan Missouri Basin Program.

I trust that this committee will do its best to meet the challenge of fairness to the upper Missouri River basin States; but in all honesty, Mr. Chairman, I sincerely doubt we can count on the lower basin States to do the same.

Thank you very much for your consideration.

United States Department of the Interior
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

REFER TO:

840.

SLO

NOV 27 1974

Memorandum

To: Secretary of the Interior

From: Solicitor

Subject: Authority of Secretary of the Interior to Market Municipal and Industrial Water from Missouri River Basin, Pick-Sloan Project

You have inquired whether you have the authority to market water from the six mainstem reservoirs in the Missouri River Basin, Pick-Sloan Project, for municipal and industrial purposes. The water that would be sold is that for which storage capacity was provided in said reservoirs for irrigation and for the probable extent of future irrigation, but which it will not be possible to market for the latter purposes during the terms of the proposed M&I contracts.

It is my conclusion that you have such authority under Section 9 of the Flood Control Act of December 22, 1944, 58 Stat. 891. Section 9 authorized the construction by the Corps of Engineers and the Bureau of Reclamation of a comprehensive plan for the development of the Missouri River Basin, including the mainstem and its tributaries. This is the so-called "Pick-Sloan Project," named for the respective Corps of Engineers and Bureau of Reclamation authors of the two studies upon which the legislation was based. The Pick plan, set forth in H. Doc. 475, 78th Cong., 2d sess., was the Corps study, and the Sloan plan, set forth in S. Doc. 191, 78th Cong., 2d sess., was the Bureau study. These were revised and coordinated by S. Doc. 247, 78th Cong., 2d sess.

Section 9 of the 1944 Flood Control Act provides as follows:

> (a) The general comprehensive plans set forth in House Document 475 and Senate Document 191, Seventy-eighth Congress, second session, as revised and coordinated by Senate Document 247, Seventy-eighth Congress, second session, are hereby approved and

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the initial stages recommended are hereby authorized and shall be prosecuted by the War Department and the Department of the Interior as speedily as may be consistent with budgetary requirements.

(b) The general comprehensive plan for flood control and other purposes in the Missouri River Basin approved by the Act of June 28, 1938, as modified by subsequent Acts, is hereby expanded to include the works referred to in paragraph (a) to be undertaken by the War Department; and said expanded plan shall be prosecuted under the direction of the Secretary of War and supervision of the Chief of Engineers.

(c) Subject to the basin-wide findings and recommendations regarding the benefits, the allocations of costs and the repayments by water users, made in said House and Senate documents, the reclamation and power developments to be undertaken by the Secretary of the Interior under said plans shall be governed by the Federal Reclamation Laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto), except that irrigation of Indian trust and tribal lands, and repayment therefor, shall be in accordance with the laws relating to Indian lands.

(d) In addition to previous authorizations there is hereby authorized to be appropriated the sum of $200,000,000 for the partial accomplishment of the works to be undertaken under said expanded plans by the Corps of Engineers.

(e) The sum of $200,000,000 is hereby authorized to be appropriated for the partial accomplishment of the works to be undertaken under said plans by the Secretary of the Interior. (58 Stat. 891)

Under this authority the Corps has six dams and reservoirs on the mainstem of the Missouri River. This includes Fort Peck, the construction of which predated the Act but the operation of which is integrated in the Pick-Sloan Project, as contemplated in Senate Document 247 (p. 2). Under S. Doc. 247 (p. 1) the Corps was given the responsibility for determining reservoir capacities for flood control and navigation, and the Bureau was given the responsibility for determining reservoir capacities for irrigation and the probable extent of future irrigation.

In the Pick plan (H. Doc. 475, p. 28-29) the purposes for the mainstem reservoirs were described as follows:

> In addition to providing flood-control benefits on the Missouri and Mississippi Rivers, the comprehensive plan would also provide for the most efficient utilization of the waters of the Missouri River Basin for all purposes, including irrigation, navigation, power, domestic and sanitary purposes, wildlife, and recreation [Emphasis].

The concept of multiple-purpose use was further developed by the Bureau's comments on the Pick plan (H. Doc. 475, p. 7), the substance of which was also repeated in the Sloan plan (S. Doc. 191, p. 10):

> In planning the control and utilization of the waters of the Missouri Basin, the widest range of multiple benefits should be sought in each feature or group of features. All reservoirs included in the comprehensive plan, including Fort Peck, should be operated to obtain the maximum benefits in common for flood control, navigation, irrigation, power generation, and other water-conservation activities, including, but not limited to, utilization for fish and wildlife preservation, recreation, pollution abatement, maintenance of surface and ground water levels, silt control, and domestic and industrial purposes. To the extent, however, that several functions of water control and utilization are conflicting, preference should be given to functions which contribute most significantly to the welfare and livelihood of the largest number of people. It is, for example, the view of the Bureau of Reclamation, that the waters of the Missouri River and its tributaries west of or entering above Sioux City are more useful to more people if utilized for domestic, agricultural, and industrial purposes than for navigation-improvement purposes. To the extent that these uses are competitive, domestic, agricultural, and industrial uses should have preference [Emphasis].

The Bureau's concluding recommendation was actually incorporated in Section 1(b) of the 1944 Flood Control Act, 58 Stat. 887, as follows:

> The use for navigation, in connection with the operation and maintenance of such works herein authorized for construction, of waters arising in States lying wholly or partly west of the ninety-eighth meridian shall be only such use as does not conflict with any beneficial

> consumptive use, present or future, in States lying wholly or partly west of the ninety-eighth meridian, of such waters for domestic, municipal, stock water, irrigation, mining, or industrial purposes.

In the Sloan plan, the project purposes were further described as follows (S. Doc. 191, p. 10):

> It is a comprehensive plan for the highest beneficial use of the waters of the basin. It provides for flood control, navigation, irrigation, power development, domestic and industrial water supplies [Emphasis], silt control, recreational use of waters, conservation of fish and wildlife, and pollution abatement, and will assist in the restoration and maintenance of ground-water levels and inland lakes.

In accordance with the foregoing plans, capacity was included by the Bureau in the mainstem reservoirs for municipal and industrial purposes, as well as for irrigation and the probable extent of future irrigation, and the benefits and allocations of costs were determined under Reclamation law, as provided for in Section 9(c) of the 1944 Flood Control Act. In the Sloan plan (S. Doc. 191, p. 13) the principal contribution to municipal and industrial water supplies was viewed as the increase in the surface and ground-water supplies that were then being used for those purposes.

It is clear that where capacity has been included in the mainstem reservoirs at the request of the Bureau of Reclamation for irrigation and municipal and industrial purposes, the water available from such capacity is to be marketed for such purposes by the Bureau of Reclamation under the Reclamation laws, just as the hydroelectric power generated at those reservoirs is now being marketed by the Bureau of Reclamation under the Reclamation laws.

The Sloan plan outlined the arrangements as follows (S. Doc. 191, p. 11):

> The agency with primary interest in the dominant function of any feature proposed in the plan should construct and operate that feature, giving full recognition, in the design, construction, and operation, to the needs of other agencies with minor interests. All reservoirs where flood control and navigation are dominant should be operated by the Corps of Engineers, and where the flood control and navigation functions are minor, the reservoirs

> should be operated in accordance with regulations of the Corps so far as flood control and navigation are concerned. All irrigation features should be operated by the Bureau of Reclamation or its agents. All reservoirs in which irrigation, restoration of surface and ground waters [municipal and industrial supplies], or power, is dominant, should be operated by the Bureau of Reclamation. Where these functions are minor, the reservoirs should be operated under regulations of the Bureau of Reclamation so far as such functions are concerned.

These arrangements were translated into the 1944 Flood Control Act by Subsection 9(c), which provides that the reclamation and power features "shall be governed by the Federal Reclamation Laws."

Although the Sloan plan (S. Doc. 191, p. 13) provides that water will be diverted from some of the mainstem reservoirs of the project for municipal and industrial purposes, it was not contemplated in the original plan that every mainstem reservoir would be used for such purposes. However, you now inform me that it may not be feasible within the next 40 years and more to use all of the capacity provided for irrigation in the mainstem reservoirs, and you have inquired whether you have authority, in the interim, also to market for municipal and industrial purposes the water available from the irrigation capacity. On the basis of a determination by you that within the times for which the M&I contracts are to be written it will not be feasible to market such water for irrigation purposes and that the efficiency of the project for irrigation purposes will not thereby be impaired, you would, in my opinion, have authority to market such water for municipal and industrial purposes.

Under the Reclamation laws, particularly Section 9(c) of the Reclamation Project Act of August 4, 1939, 43 U.S.C. 485h(c), you have express authority to market water for municipal and industrial uses, along with your authority under Section 9(d) and Section 9(e) of said Act to market water for irrigation uses.

Section 9(c) of the 1939 Reclamation Project Act, after authorizing the Secretary of the Interior to enter into contracts to furnish water for municipal water supply or miscellaneous purposes, further provides:

> No contract relating to municipal water supply or miscellaneous purposes or to electric power or power privileges shall be made unless, in the judgment of the Secretary, it will not impair the efficiency of the project for irrigation purposes.

You are, accordingly, clearly authorized to make M&I contracts if you find that they do not impair the efficiency of the project for irrigation purposes.

Where because of changed circumstances it is not feasible to market, within the time periods originally contemplated, the amount of water available from the reservoir capacity provided for irrigation and the probable extent of future irrigation, you have not only the authority but, in my opinion, the responsibility as well, to apply that water to another beneficial use, such as municipal and industrial purposes. In the light of the objectives stated in the Pick-Sloan plans of comprehensive resource development and of best resource use, it must be inferred that Congress did not intend the opportunity to be lost ot put the irrigation water to another beneficial use during the period that it was not feasible to use it for irrigation purposes.

If such water is diverted for municipal and industrial purposes, it might not be available for the generation of as much hydroelectric power as could otherwise be generated if the water were to be passed through all of the turbines of all of the mainstem reservoirs. However, the same would have been true if the water had been diverted for irrigation use, as was originally contemplated when the storage capacity in the reservoirs was authorized. It cannot, therefore, be said that the diversion for municipal and industrial purposes will be inconsistent with the authorized development of hydroelectric power.

Moreover, as Senate Document 247 said (p. 1):

> Both agencies recognize the importance of the fullest development of the potential hydroelectric power in the basin consistent with the other beneficial uses of water [Emphasis].

Therefore, the decision as to whether it would be more beneficial to use such water for municipal and industrial purposes than for the supplemental generation of hydroelectric power would be a matter of sound administrative discretion.

/S/ KENT FRIZZELL

Solicitor

cc:
Assistant Secretary-Land and Water Resources
Commissioner of Reclamation
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A LITTLE HISTORY "DON'T" HURT

James Watt has said he's likely the last U.S. Secretary of Interior who will have ever heard of the Pick-Sloan Plan. It is possible that some people who oppose South Dakota's water sale have never read it.

To place today's controversies concerning the Missouri River in perspective, it is important to review some of the history of the Pick-Sloan Plan that led to the major developments on the Missouri River.

EARLY FLOODING

Go back to the first recorded flood stage of twelve to seventeen feet in 1844 or the severe flooding that occurred in 1881 and chronically through the 1920's. Because of these problems, Congress directed the Corps of Engineers to study ways in which these problems could be avoided. In 1927 the Corps of Engineers completed what is known as House Document 308, a 1,245 page description of methods of providing storage in the Missouri Basin to achieve flood control, irrigation, navigation and power development.

Clearly, however, the attention of the nation was not focused on water resources development in those depression days of the late 1920's and 1930's and the gathering war clouds that afflicted Europe and Japan. Like so many things, the impetus for moving forward was only partially addressed when, under the leadership of President Franklin D. Roosevelt, the construction of the Fort Peck, Montana dam began in 1933 as a public works project.

It took severe flooding once again in the early 1940's to refocus government attention. In 1943 it is recorded that seven feet of water covered the Omaha airport. It was then that national planners perceived that this continued disruption of the heartland of America that produced an enormous amount of its goods for the welfare of its citizens and comprised one-sixth of the land mass of the United States had to be addressed, if for no other reason than it posed a threat to the war effort of World War II.

A PLAN OF BENEFITS

Against that backdrop, then, two plans were advanced--one by Lewis Pick, who was the Missouri River Division Engineer, and later became the Chief of Engineers, and one by a regional engineer of the Bureau of Reclamation, W. Glen Sloan--to solve the problems of the Missouri River basin. From the marriage of these two proposals was born the Flood Control Act of 1944 which was later renamed the Pick-Sloan Plan in honor of the two gentlemen who authored the major elements of it.

The authorizing document of the Pick-Sloan Plan is Senate Document 191 that was considered by Congress in April, 1944. That Senate document, along with House Document 475, identified navigation, flood control, irrigation, power production, the restoration of surface and ground water supplies, furnishing municipal water supplies, abatement of stream pollution, silt control, fish and wildlife preservation, and recreation as the key features of the 1944 Flood Control Act.

It's interesting to look at Senate Document 191 and understand the views of those persons involved at that time. According to Senate Document 191, it was to be "a plan for the conservation and control of the water reservoirs of the entire Missouri River Basin", a radical proposal for that day. It was predicated on "yield for the greatest good to the greatest number of people".

It proposed irrigation development for 5,307,700 acres of land in the Basin and 758,500 kilowatts of hydro power capacity. South Dakota's proposed share of that irrigation development was set at 972,510 acres.

WHO BENEFITTED FIRST?

The key to the development of the Pick-Sloan Project was probably most clearly enunciated by then Chief of Engineers, Maj. Gen. E. Reybold, who, in a letter to the Commissioner of Reclamation dated April 25, 1944, stated in part:

> "Since reservoirs on the mainstem are the most beneficial from the standpoint of flood control below Sioux City and are vitally needed for cyclic storage, I consider the maximum practical amount of storage must be provided on the mainstem in North and South Dakota."

This, then, clearly outlined the major tradeoffs in the development of the Pick-Sloan Plan and it is important to remember that these are the same sort of issues that are still being debated today.

What were those tradeoffs?

FLOOD STORAGE AND IRRIGATION

First, trade reservoir storage space by permanently flooding large areas of South Dakota, North Dakota and Montana to accommodate flood control in return for irrigation development in these upper basin states. South Dakota, for example, permanently flooded over 500,000 acres of Missouri River bottomlands in order to do their part in the development of the Pick-Sloan Plan.

NAVIGATION IS NOT A PRIORITY

The second major tradeoff concerned the same type of upstream versus downstream fight seen today, but was centered primarily on the use of water for such things as irrigation and power production versus downstream navigation. This conflict was resolved by a key amendment to the Act, known as the O'Mahoney-Milliken Amendment, which stated:

> "The use for navigation, in connection with the operation and maintenance of such works herein authorized for construction,

> of waters arising in States lying wholly or partly west of the 98th meridian shall be only such use as does not conflict with any beneficial consumptive use, present or future, in the states lying wholly or partly west of the 98th meridian, of such waters for domestic, municipal, stock water, irrigation, mining or industrial purposes."

Iowa lies wholly east of the 98th meridian. This key amendment broke the deadlock between upstream and downstream states by guaranteeing water use by those upstream states -- not just a chance to look at large reservoirs.

HYDROPOWER TO BE SHARED

The third major tradeoff or feature of the Pick-Sloan Plan was that the hydropower developed would be shared among the states of the Basin, without regard to the location of those plants which would produce that power.

REALITY

What has happened as result of this far reaching legislation?

Flood control Six mainstem reservoirs have been constructed on the Missouri (one each in Montana and North Dakota, four in South Dakota) which provide for 74.3-million acre feet of storage. That's 24.2-trillion gallons of water. Of that amount 58-million acre feet are dedicated annually to flood control.

For flood control the dollar savings have been enormous. Since 1954 when the mainstem reservoirs were initially operated as integrated units, there has been cumulative savings from flood control of $1.489-billion ($450-million of that savings in 1977 alone). Compare this to the total federal investment in the Pick-Sloan Plan of about $1.15-billion. No more does Omaha or St. Louis have to contend with the killer floods that afflicted them in the '20s, '30s, and '40s. Records indicate that in 1952, flood waters crested at 30 feet in Omaha. Unlike Ft. Wayne, Indiana, which in March, 1982, dominated the national news because of severe flooding, downstream states in the Missouri Basin need no longer fear for their lives or property.

Irrigation Power revenues from the Pick-Sloan dams assist in the repayment of 562,800 federally-developed acres of irrigation. Of that amount, 24,100 acres are in South Dakota (in the Shadehill, Rapid Valley and Angostura projects). Recall, then, the promise that was made to South Dakota in 1944 to have over 970,000 acres of irrigation development. Thirty-eight years later, 2.5% of that promised amount has materialized.

What's more, the stabilizing influence of the dams on the mainstem has added approximately 188,000 acres of prime cropland along the river from Sioux City south which would never have been possible to farm with the uncertainties of potential annual flooding.

Hydropower Hydro development has far exceeded the initially proposed 758,500 kilowatts of development. Today, 2,398,000 kilowatts of installed capacity produces between 10- and 12-billion kilowatt hours of energy annually. That power is delivered over approximately 7,400 miles of federal transmission lines and 90 substations to 230 preference customers and also furnishes large blocks of power for customers of private power companies. Of the firm power, South Dakota preference customers receive 22% of that total. The upstream states that bore the burden of the construction on the mainstem dams, namely Montana, North and South Dakota, presently receive about 42% of the firm power that is marketed while Iowa, Minnesota and Nebraska receive about 58% of that firm power.

The "cash register" of the Pick-Sloan Plan has served the system's investors who are the taxpayers, well. Through fiscal year 1979, revenues from power users have returned $990 million to the U.S. Treasury, repaying with interest the reimbursable investments. Today, power sales raise about $100-million annually for the federal government. These revenues also pay for the operation, maintenance and replacements in the system and assist repaying investments made in Pick-Sloan irrigation projects. Water delivery for irrigation, municipal and industrial purposes produce additional revenue for the Treasury; however, the large majority of revenues is accounted for by hydropower sales.

Navigation Another major beneficiary of the construction of the mainstem dams has been navigation with the maintenance of a nine-foot-deep, 300-foot-wide channel that provides an eight-month barge season, in recent years allowing over three million tons of commodities annually to be shipped from Sioux City on south. Approximately one-third of those commodities has been farm produce.

Recreation Recreation on the Missouri River furnished 10 million visitor days in 1981, and wildlife has been enhanced.

With that record, then, why is there this new interest and conflict?

It dates, perhaps, from 1973 and the beginning of the oil crises, prompting major energy corporations to look at the Missouri River as a water source for future energy development. Like it or not, this region is blessed in Wyoming, North Dakota and Montana with enormous amounts of coal which in order to be used needs enormous amounts of water. The U.S. Bureau of Reclamation, in their 1977 Water for Energy study, estimated that one million acre feet could be made available for the purposes of energy development without affecting the other uses on the river.

While there has been an uproar lately about the amount of water being used for industrial purposes--the most famous of which is the sale by the State of South Dakota of 50,000 acre feet of water to Energy Transportation Systems, Inc. for a coal slurry pipeline--there is presently less than 100,000 acre feet of water that is permitted to major energy users. Compare that with the Corps of Engineers estimate of evaporation losses on the six mainstem reservoirs of one to 2.5 million acre feet annually.

Nonetheless, it raises questions--questions which should be addressed in the context of history.

Issues that cause conflicts between upstream and downstream states in the Basin are not new. They may be created by different and changing pressures, but they are not new. In the past, the conflicts were settled by compromise, negotiation and an overall view, to quote Senate Document 191, to "yield the greatest good to the greatest number of people." It is our responsibility at the state and federal level to pursue this goal.

South Dakota must look to the Missouri River and how it can use what it believes is a fair and yet modest entitlement to foster some state development of municipal water supplies, rural water systems and state irrigation projects. These modest efforts do not in any way relieve the significant federal obligation to South Dakota as its part of the Pick-Sloan "deal".

South Dakota has benefitted from the Missouri River--but in terms of overall concept and major benefits that have occured as a result of that development, South Dakota has come up short. So short in fact, that in some respects downstream states have benefitted more by accident than South Dakota has by design.

######

people demand that they be built. The longer we wait, the more costly they will become. It would be fiscally irresponsible to vote for any delay. Water is wealth. This is an investment in America and the future food-producing capacity for our country, to address the trade imbalance problems associated with our oil imports.

I urge my colleagues to join me in voting against this amendment.

(By unanimous consent, Mr. Bedell yielded his time to Mr. Cavanaugh.)

The CHAIRMAN. The Chair recognizes the gentleman from Nebraska (Mr. Cavanaugh).

Mr. CAVANAUGH. Mr. Chairman, I would just briefly make response to the comments that have been made.

This project does not meet all the criteria. This project has been under injunction issued by the Federal District Court for the District of Nebraska since March 1977 because it does not meet the established criteria, specifically because it does not meet the criteria for safety.

Of the 96 percent that is going to be paid back, less than 25 percent of that will be paid back by the direct beneficiaries, and we will have 77,000 acres benefited to the extent of $200 million in expenditures of Federal tax moneys. Those expenditures are not justified on the basis of the benefits to be derived.

Mr. Chairman, once we go in and look at the project and scrutinize its benefits, we will find they are ephemeral and fictitious, and this project is not justified.

The CHAIRMAN. The Chair recognizes the gentleman from Arizona (Mr. Rudd).

Mr. RUDD. Mr. Chairman, I think the chairman of the subcommittee, the gentleman from Alabama (Mr. Bevill), has properly put this whole subject matter in its best perspective. The people want it. The committee inquired into it very thoroughly, as is its responsibility to do, decided favorably and I urge rejection of the amendment.

The CHAIRMAN. The Chair recognizes the gentleman from South Dakota (Mr. Abdnor).

(Mr. ABDNOR asked and was given permission to revise and extend his remarks.)

Mr. ABDNOR. Mr. Chairman, I rise in vehement opposition to the amendment offered by Mr. Cavanaugh.

It has been argued that this is not an antiwater development amendment but merely an attack on an individual project. I submit, however, that such is not the case.

If the proponents of the Cavanaugh amendment do not support the O'Neill unit, which ranks among the very best of all proposed projects, can they expect us to believe they will support others?

No, their attack on this project is not confined to the interests of Mrs. Smith's district alone. It is an attack on the entire system by which water projects are evaluated, and it is clear they mean to stop irrigation projects in general.

Their efforts are misguided. Water development projects are subjected to rigorous analysis of their benefits and costs. On the basis of its benefit-cost ratio and other criteria, even the President, who is certainly no advocate of boondoggle water projects, supports the O'Neill unit.

Water development projects are among few Federal expenditures which represent an investment and actually return more to the national economy than they cost. The O'Neill unit in particular will return $2.70 for every dollar spent.

Mr. Chairman, the position of my colleague from Iowa (Mr. Bedell) is especially distressing to me. According to information furnished by the Corps of Engineers, development of the Pick-Sloan Missouri River Basin program has generated the following benefits to Iowans:

First, Recreation: 250,000 visitor days annually and $400,000 average annual benefits;

Second. Bank stabilization: Cumulative benefits at 1979 prices total $88 million to agriculture and $35 million to municipalities;

Third. Navigation: The corps could not break out benefits to Iowa alone, but the system moves 3.1 million tons per year. With over 200 miles of navigable river, Iowa gets a proportionate share and pays nothing for the privilege. I might ask my colleague what he would think about extending navigation into South Dakota. I am sure he would consider it to be a "boondoggle."

Fourth. Flood control: This is the primary cause of and moving force behind the authorization of the P-SMRBP back in 1944. Benefits through 1978 total $1.4 billion from flood waters stored in the reservoirs; $250,000,000 of these benefits have accrued to Iowa. In addition, the levy system has benefited Iowa in the amount of $290,000,000. Thus, flood benefits to Iowa have totalled $540 million. These benefits, like navigation, are totally nonreimbursable, which is to say, they are free of cost to Iowans.

Fifth. Hydropower: Despite making no contribution of land for the reservoirs which make hydrogeneration possible, Iowa receives Missouri Basin hydropower for 40 cities and towns and 2 co-ops serving rural consumers.

Information furnished by the Western Area Power Administration on hydropower allocations from 1969-78 further demonstrate the hypocrisy of my colleague's position. WAPA's figures show that in 8 out of the last 10 years Iowa has received more of the power generated at our reservoirs than we have. Only in 1974 and 1975 did South Dakota receive more than Iowa. In fiscal year 1976, for example, Iowa received nearly 18 percent, and South Dakota got less than 12 percent. In that year Minnesota, Iowa, and Nebraska received over 70 percent of the hydropower generated in South and North Dakota and Montana. The latter three States gave up nearly 2 million acres for Missouri Basin program facilities; yet, they have received a minimal proportion of the hydropower and none of the navigation benefits. The primary flood control impact in these States is permanent flooding, and now my colleague would deny the primary benefit authorized in the Flood Control Act of 1944 to compensate these States for their losses.

My colleague has argued the so-called mistakes of the past should not be used to justify boondoggles of the present and future, but he fails to recognize that the Missouri Basin program was and is an integrated program of development. Indeed, it used to be known as the Pick-Sloan Missouri River Basin project. Does he really believe that the Dakotas and Montana are and ought to be so noble, generous, self-effacing, and even masochistic as to accept the costs of the program to them and forget the major benefit they are to receive in return?

According to my correspondence of last year with the Bureau of Reclamation, Missouri Basin program, facilities have taken the following acreages off the tax roles:

Montana	723,176
North Dakota	648,060
South Dakota	636,676
Nebraska	63,569

In return each of these States was to receive substantial acreages of irrigation development to offset their losses. South Dakota, for example, was to have received 670,000 acres of full irrigation water service development and supplemental irrigation water service to 66,100 acres. It is important to note that these projects were actually authorized for development in the 1944 act, along with the hydropower, navigation, and flood control. Irrigation is the sole major undeveloped feature of the program, and Public Law 88-442 provided that further specific congressional authorization would be required before any of the irrigation units authorized in the 1944 act could be constructed. To date, we have achieved such specific authorization of the Oahe and Pollock-Herreid units; but we have yet to realize actual development of even one single acre of federally assisted irrigation out of the Missouri River, pursuant to the Pick-Sloan plan. If my colleague has his way, it is doubtful we ever will.

Contrast that reality with the promise characterized by President Kennedy's August 1962 remarks at the dedication of Oahe Dam. The President said:

> This dam alone will supply enough irrigation to serve an area larger than the Nation of Luxembourg.

Contrast reality also with the legislative history written by Senator Mundt, when on May 8, 1944, as a Congressman, he rose on the floor of the House in support of enactment of the Flood Control Act of 1944. The Congressman said:

> Finally, and most emphatically, South Dakotans are interested in irrigation. Growing out of the river-development program outlined in House document 475 and the May 1 report of the Bureau of Reclamation there now beckons to us one of the greatest and most profitable irrigation opportunities in this country. A proposed irrigation project near Huron, South Dakota, is one of the largest ever engineered by the Bureau of Reclamation. It encompasses some of the richest soil in this Republic. It envisages making available a regulated and consistent supply of moisture which will add greatly to the farm products available to this country and to the world. From the water impounded behind dams erected for flood control can come the source supply needed to fill irrigation ditches and bring moisture to hundreds of thousands of parched acres.

The Congressman spoke, of course, of the 495,000-acre Oahe unit, which constituted the major portion of the irrigation authorized for development in South Dakota under the 1944 act.

Finally, contrast reality with the remarks of Congressman Berry, as published in the Rapid City Journal. The Congressman is quoted as follows:

> In 1941 when the Missouri River States Committee, the forerunner of the interagency committee, was organized, Gov. Harlan Bushfield appointed me to serve with him as our State's representatives in the promotion of irrigation and river development.
>
> I then served on the committee with Gov. Sharpe. He and I met with representatives of all the Missouri River States in Omaha during the devastating flood of 1943 when the river south of Sioux City was 10 miles wide. The downstream states that were losing millions of dollars every few years from floods, wanted the upstream States to permit large mainstem dams to be built in order to protect them from future high waters.
>
> Gov. Sharpe and I joined the delegates from Montana and North Dakota in demanding that if we gave up some two million acres of our best lands and tax base to be flooded forever with these great reservoirs that our States would be compensated by the use of that stored water for irrigation, thus replacing the land and tax loss.
>
> We received the unanimous pledge from the representatives of all the States, as well as the federal officials who were participating, that if we would give up our lands and tax base for flood control purposes, that such loss would be replaced elsewhere by greatly increased production through irrigation.

It is obvious my colleague pays little heed and less respect to the pledge of which Congressman Berry spoke. Perhaps if we opened the floodgates at the dams and allowed the river again to flood his district 10 miles wide, he would have a little better sense of history. Perhaps if the Energy and Water Development Appropriations were amended to prohibit the expenditure of funds for the delivery of P-SMRBP hydropower to Iowa, my colleague would pay more attention to the solemn obligation to our State, as well as to the gratuitous benefits to his own.

These arguments may seem a bit extreme, but how else are we to make our point? How can we ignore the study which shows an annual loss of over $90 million in business activity and over $30 million in personal income as a result of the reservoirs in North Dakota? South Dakota's losses would be similar, and that's every blasted year. The population of our State is stagnant, and little wonder since South Dakota consistently ranks among the lowest of all States in per capita income—over $1,000 less than Iowa in 1978.

How can we tolerate the hypocrisy of my colleague from Iowa when his State gets all of the benefits and none of the costs of the P-SMRBP? Since I opposed the high dams in the first place, I believe I am more than justified in being indignant at his attitude. In effect, we have been raped of our land to store flood waters which would have inundated Iowa and which allow Iowans to float barges. The barges compete with rail transportation, and we are losing our railroads in South Dakota. Iowa is pillaging our hydropower; and, to add insult to injury, my colleague now tells us we are the ones who need to get the religion of fiscal responsibility and forego the irrigation we are supposed to receive to offset our losses. Could it be his constituents have become addicted to the hydropower they have received as a result of the lack of irrigation development in our State?

"Boondoggle" may be a dirty word; but in my book "hypocrisy," "doublecross," "thievery," and "betrayal" are worse.

Again, the Pick-Sloan Missouri River Basin program, authorized by the Flood Control Act of 1944, was an integrated plan of development. In effect, it was a single project with many facets. The Oahe unit in my district and the O'Neill unit in Mrs. SMITH's district are two such facets. That is why they are called "units"—they are units of the Missouri Basin project. To argue that they should not be developed is to attempt to change the terms of the agreement. For those who have benefited most from other terms of the agreement and other facets of the project to try at this time to block facets of the project which would be of benefit to my constituents is sheer hypocrisy, purely and simply.

I implore my colleagues to defeat the Cavanaugh amendment and to reject the attitude that the sacrifices of the States of the Upper Missouri River Basin can be ignored and forgotten. As the President has pointed out, life is not always fair; but I plead with you not to contribute to one of the grossest injustices which could possibly be perpetrated upon my constituents.

The CHAIRMAN. The Chair recognizes the gentleman from Indiana (Mr. MYERS).

Mr. MYERS of Indiana. Mr. Chairman, the impression has been left this afternoon that the injunction now against the project that stopped construction was due to the merits of the project. That is not true. Rather, the final environmental statement was not complete, as the committee found.

A second environmental statement was filed. It was found again that the statement was not complete in two instances. The Bureau of Reclamation is currently gathering additional information for compliance.

Now, as for the repayment schedule, there is $45,245,000 already under contract to be repaid to the U.S. Treasury by the irrigators. There is also over $144 million that is to be repaid under existing power structures in the Pick-Sloan Missouri River Basin system. Those will be actual dollars coming back into the Treasury, not just benefits accruing to the Nation.

Mr. Chairman, this amendment should be defeated.

(By unanimous consent, Mr. KOSTMAYER yielded his time to Mr. BEDELL.)

The CHAIRMAN. The Chair recognizes the gentleman from Iowa (Mr. BEDELL).

Mr. BEDELL. Mr. Chairman, our time is short, but I would simply like to point out that this is a separate project just as the new Senate Office Building is a separate project. We can say that our office buildings are one project, and we can say all of the Pick-Sloan area is one project, but the fact is that we looked at that Senate Office Building, and many of us here thought it was wrong.

Mr. Chairman, I think we have an obligation to look at every project individually and make a judgment as to whether or not it is in itself a justifiable expenditure.

● Mr. KAZEN. Mr. Chairman, I rise in opposition to the amendment of the gentleman from Nebraska. The amendment seeks to kill the O'Neill unit of the Pick-Sloan Missouri Basin program.

The O'Neill unit is a multipurpose project. It will serve the functions of irrigation, recreation, fish and wildlife, and flood control.

Over the life of the project, 96 percent of the Federal investment will be repaid.

The project has one of the highest cost-benefit ratios of any project in the Nation.

This project was authorized in 1972. It had been carefully examined by the appropriate legislative committees of both Houses and recomended for approval.

The project has had the full support of two administrations, including the present administration. Also, just 14 days ago, it received the overwhelming support of the citizens of the area who voted approval by a margin of more than 3 to 1.

Mr. Chairman, the gentleman's amendment seeks to undo in this bill that which the responsible committees of the Congress and the Congress itself did in 1972. It seeks to reverse the decision of two administrations which have supported the project. And, finally, it seeks to reverse the decision of the people most directly affected by the project who have overwhelmingly approved it.

Mr. Chairman, if this project is a bad project—and I do not believe that it is—then, those who oppose it should have come forth long ago with a bill to deauthorize it so that the proper legislative committees could make a decision after full hearings. This was not done, and this is not the place to do it.

Mr. Chairman, I urge defeat of the amendment.●

The CHAIRMAN. All time has expired.

The question is on the amendment offered by the gentleman from Nebraska (Mr. CAVANAUGH).

The question was taken; and the Chairman announced that the noes appeared to have it.

RECORDED VOTE

Mr. CAVANAUGH. Mr. Chairman, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 106, noes 210, answered "present" 1, not voting 117, as follows:

Senator WALLOP. Thank you very much, Senator. Mr. Neufeld?

Mr. NEUFELD. Thank you, Senator Wallop. As a matter of explanation, I have submitted my statement for the record. I intended to attach to it a statement being given by Governor Janklow who is at a conference in Boulder, Colo, on of all things the interbasin transfer of water, but as so often happens in the age of technological wonders, the computer memory blanked out his statement over the weekend and I was unable to have it prepared in time for this committee. I will submit it later for the record.

Senator WALLOP. It will be included. The hearing record will remain open for 2 weeks.

STATEMENT OF WARREN R. NEUFELD, SECRETARY OF WATER AND NATURAL RESOURCES, STATE OF SOUTH DAKOTA

Mr. NEUFELD. Mr. Chairman, I would like to paraphrase my remarks.

Senator WALLOP. Your whole statement will be included in full.

Mr. NEUFELD. When we were negotiating our agreement with the ETSI Coal Slurry Pipeline Co., we made it abundantly clear to them that the State of South Dakota and Governor Janklow in particular is not going to take the position of eminent domain for coal slurry pipelines, and I am not here to speak in favor of S. 1844 or against 1844.

We do, however, have a very vital interest in the protection of State water rights, and I have reviewed section 6 of the existing bill, and I have reviewed the proposed amendments of Senator Wallop. I thought the existing section 6 was adequate. I think your amendment is better, and I would urge its adoption.

The only comment that I would have is that I think the term "Federal reserved right" as used in your new subdivision as proposed in the amendment ought to be defined because it injects a new term into the legislation.

Senator WALLOP. If anybody can define exactly what a Federal reserved right is, I would be very happy to have it.

Mr. NEUFELD. I have a few suggestions.

Senator WALLOP. I have some question as to whether there is such a thing, but if there is, that perhaps ought to be where we take it.

Mr. NEUFELD. I am basically here to set the record straight, Mr. Chairman, members of the committee, with respect to South Dakota's transaction with ETSI. I have read the statements submitted on May 10 by the attorneys general of Iowa and Missouri, and frankly, I am appalled. They have accused the State of South Dakota of duplicity and fraud and underhanded dealing with the ETSI Coal Slurry Pipeline Co. in order to rob those States of water that they seem to think is rightfully theirs.

Senator, nothing can be further from the truth. South Dakota's relationship with ETSI has been open and it has been notorious for almost 8 years now. We started negotiating with ETSI in order to prevent what we seem to think was going to be a severe threat to South Dakota's water supplies when ETSI proposed use of the Madison Formation in Wyoming. At the beginning of those negotiations, ETSI was not interested in looking at the reservoir as a principal water supply. They wanted to take ground water that would affect South Dakota municipalities. They would have increased the waste water treatment cost of the city of Hot Springs by $100,000 a year alone. Simply because we reduced flows of the river, it would have increased treatment needs for that city's waste water treatment plan. It would have dropped the water table in Edgemont, S. Dak., somewhere in the neighborhood of 300 to 350 feet over the lifetime of the coal slurry pipeline project. It would have affected numerous ranches and other communities of the southern Black Hills areas of the State of South Dakota.

ETSI, however, wanted Oahe water right only as a backup. We threatened litigation. We went to the State and asked them to repeal their authorization for the water right, and all to no avail except for the fact that in 1977 the South Dakota Legislature did pass a statute that would have authorized the issuance of a backup water right to ETSI from the Oahe Reservoir that was vetoed by Governor Kneip, and an override attempt failed by one vote in the South Dakota State Senate.

Things took a turn for the worse between South Dakota and ETSI in an attempt to save our water supplies in the Black Hills until about one day in May of last year when ETSI's South Dakota counsel happened to run into Governor Janklow in the capitol cafeteria and the Governor said look, Jim, we don't need to get into this fight. There has got to be some way we can agree so that we don't have to get into litigation that is going to cost us millions of dollars and may end up stopping your project which other than the water supply we really have no problems with, and that message was taken back to ETSI and we began negotiations right around the first of June 1982. At that point, one agreement was reached, and it was not reached until practically the day before the special session of the South Dakota Legislature was called in order to pass legislation authorizing its formal execution.

We found that we were able to accomplish a number of very real goals with the State of South Dakota. ETSI was willing to use the Missouri River as a primary source for its coal slurry pipeline, not to use the Madison Formation except when Missouri River water is not legally or physically available. They would deliver water through their pipeline to Wyoming for western South Dakota communities in which there is very, very real need.

The city of Phillip, Mr. Chairman, has great naturally occurring radium content in its water supplies that are 30 times the EPA primary drinking water standard. The city of Midland has a radium content three times the national standard, and by and large, branches in other communities in the area between the Missouri River and the Black Hills in South Dakota have similar problems with their water supplies. We had a very real need to deliver good, potable quality drinking water to those people, and the only way to do it, it became very apparent that we need a massive subsidy from private industry in Wyoming or from the Federal Government. We have found it is much easier to deal with private industry than with the Federal Government.

Thirdly, we found that we were able to obtain water, I mean money, excuse me, that we were able to obtain money for water facility construction funds in the State of South Dakota and these days when cost sharing is becoming a very popular catchword in Washington, D.C., we found that the State of South Dakota which in 1980 ranked 50th in per capita income in the United States was going to be again left behind in water development from the Federal level. We don't have the irrigated economy that our downstream neighbor of Nebraska has. We don't have the coal and oil and gas reserves that Montana, Wyoming, and North Dakota have. Our only asset is water, and the Federal Government has not to this date lived up to its commitment to provide us the water development we thought we were getting when we agreed to place the dams in our State.

With respect to the State's right issue, Iowa and Missouri indicated they were very interested in preserving to their States their prerogatives with respect to the allocation of water. I suggest that what is good for the goose is good for the gander, and that if Iowa and Missouri wish to preserve those options, then they ought to be willing to recognize the same right to the State of South Dakota.

It is interesting to note, Mr. Chairman, that they are complaining about a diversion of 50,000 acre-feet for the ETSI coal slurry pipeline. That represents less than one-tenth of the annual evaporation from the Oahe Reservoir above Pierre. Stream gages could not measure the difference. In fact, in 1978, the Missouri River Basin Commission did a study projecting the use of water for energy development in Wyoming, Montana, and North Dakota, and determined on its baseline projection that by the year 2000 the annual use will approach 240,000 acre-feet. If all that water were to come to the Oahe Reservoir, there is not a stream gage accurate enough to measure the difference.

The annual flow of the Missouri River at Pierre, S. Dak., is around 18 to 19 million acre-feet. Stream gages have an accuracy somewhere in the neighborhood of 5 percent; figure that out. That is a little less than 1 million acre-feet that is needed in order to be measured. Even if that amount were taken out at Pierre or above Pierre, S. Dak., it still couldn't be measured at Sioux City because the river gains 3 million acre-feet a year between Pierre and Sioux City, and it definitely couldn't be measured at the mouth of the Missouri because the river gains 33 million acre-feet between Sioux City and its mouth, and it is amazing to me that Iowa and Missouri apparently not only are not satisfied with the 33 million acre-feet of water a year that flow into the Missouri downstream from Sioux City, but they also want the smaller amount of 21 million acre-feet that the upper basin States contribute every year and that flows by Sioux City for their benefit.

Another comparison I would like to make, Mr. Chairman, is the fact that every year at the end of the navigation season the Corps of Engineers reduces the flow of the Missouri River at the Gavin's Point Dam, the lowest dam on the stream, from 32,000 cubic feet per second which is the full service navigation flow to 15,000 cubic feet per second. This is a 53-percent reduction in the streamflow of the Missouri River from the last dam on that stream. I have yet to hear a complaint from any downstream State that those 15,000 cubic feet per second that flow down the river during the 4 winter months are inadequate to meet the municipal, stock water, recreational, and whatever needs they have, and they are complaining about a flow that represents less than three-tenths of 1 percent, a withdrawal that represents less than three-tenths of 1 percent of the flow of the Missouri River at Pierre, S. Dak. I think, frankly, they are making a mountain out of a molehill.

With respect to the Pick-Sloan plan, the downstream States have received a number of benefits; $1.537 billion in flood damages have been avoided by the destruction and flooding of 500,000 acres of South Dakota land. Unwittingly, the Corps of Engineers says that the downstream States have put back into production 188,000 acres of prime croplands. That is more than the State of South Dakota and North Dakota together have been allowed to irrigate under the Pick-Sloan plan that was originally authorized in 1944.

Nebraska is complaining about an interbasin transfer. It sits downstream on the Platte River from Wyoming and Colorado. Colorado imports into the Missouri River Basin at the head of the Platte somewhere in the neighborhood of 500,000 acre-feet of water a year, and Nebraska isn't complaining about that interbasin transfer, Mr. Chairman.

Senator **Abdnor**. Mr. Chairman, I have to run. Could I be excused?

Senator **Wallop**. You may.

Mr. **Neufeld**. I am trying to be very brief in my remarks, but I get very upset when these States that have been made wealthy and benefited more, they get more power from the main stem dams in South Dakota than South Dakota gets, they receive more from the main stem dams than the upstream States have, and they come in, they are complaining about our State's right to allocate water resources under the laws of the State of South Dakota and the rights that were specifically reserved to the upper basin States under the 1944 Flood Control Act.

One final remark with respect to the claims of Iowa and Missouri—they maintain that section 6 of the 1944 Flood Control Act gives the Army Corps of Engineers the authority to contract surplus water from the domestic and industrial uses, and clearly that is the reading of the language of that section. They also maintain that that water is not surplus, or that it is surplus and falls within the terms of that section, and that the powers granted to the Corps of Engineers under that section for the 1944 Flood Control Act are exclusive.

Nothing can be further from the truth. I submit first of all that the water is not surplus within the definition of section 6 of the 1944 Flood Control Act. In order to be surplus it has to be water that is not stored or used for other purposes of the main stem system. Mr. Chairman, when the four main stem dams on the Missour River in South Dakota were authorized, they were designed and authorized to provide irrigation to somewhere between 800,000 and 900,000 acres of land in the State of South Dakota. Today, not one acre of land in South Dakota is being irrigated by the Pick-Sloan diversion from the Missouri River.

There is, therefore, an allocated reclamation function in those main stem dams of somewhere in the neighborhood of 800,000 to 900,000 acres. The Interior Department has subsequently reduced that to 560,000 acres of irrigation.

My point is this: Section 9(c) of the 1944 Flood Control Act requires the Secretary of Interior to operate the reclamation functions of those Pick-Sloan reservoirs even though they were constructed by the Army Corps of Engineers. According to Federal reclamation law, section 9(c)(2) of the Reclamation Project Act of 1939 gives the Secretary of Interior all the authority he needs to enter into the contract they have negotiated with ETSI to provide water service—water service, not water—storage service for water obtained under a State water right which has been provided by the State of South Dakota during an interim period until those reclamation functions are needed for irrigation purposes.

If we are not going to be allowed by the Federal Government to use the reclamation functions of those main stem dams to replace the damage done to our economy by flooding 500,000 acres of land in the State of South Dakota, Iowa and Missouri cannot deny us the right of making interim use of those facilities to the benefit of the State of South Dakota and ultimately to the Nation.

Mr. Chairman, I would like to conclude my remarks. Thank you.

[The prepared statements of Mr. Neufeld and Governor Janklow follow:]

Statement of Warren R. Neufeld

Secretary, South Dakota
Department of Water & Natural Resources

Before the
U.S. Senate Committee on Energy
and Natural Resources
Hearing on S.1844
June 8, 1982
Room 3110, Dirksen Senate Office Building
Washington, D.C.

Mr. Chairman and members of the Committee, my name is Bob Neufeld and I am Secretary of the South Dakota Department of Water and Natural Resources. I am not here today to speak in favor of or in opposition to the bill before this Committee or the grant of federal eminent domain powers to coal slurry pipelines. I am here only to respond to the charges and inaccurate opinions placed before this Committee by the Representatives of the sovereign states of Missouri and Iowa on May 10, 1982. I have attached to my remarks a statement prepared by Governor Janklow of South Dakota for a legal conference on interbasin transfers being held today in Boulder, Colorado. If it were not for this prior commitment, Governor Janklow would himself be here today. It is my hope that the Governor's remarks will enlighten the Committee on the situation facing South Dakota when she entered into her relationship with ETSI Pipeline Project.

First of all, I ask the Committee to consider the basic assumption in the Iowa and Missouri testimony that coal slurry pipelines are bad and all other downstream uses are good. Without seriously weighing the relative merits of water for use by coal slurry pipelines, the Iowa Attorney General flatly states,

> "Coal slurry pipelines, unlike barge navigation, consume streamflow and preclude use of the diverted waters for navigation, hydro power generation, and other downstream uses."

I could just as easily say,

> "Barge navigation, unlike coal slurry pipeline and other beneficial consumptive uses, prohibits streamflow consumption and precludes the diversion of waters for upstream domestic, municipal, stock water, irrigation, mining, industrial, coal slurry or other higher economic and more beneficial purposes."

We should make no mistake here: the underlying issue in not whether coal slurry or barge navigation are better uses of water, although that consideration is relevant. The real issue is whose ox is getting gored.

I submit to the Committee today that no one's ox is, in fact, being gored. Iowa and Missouri are only angry because South Dakota is finally beginning to share in the wealth of the Missouri River and our downstream neighbors will not admit that there is plenty to go around.

In 1974, then Assistant Secretary of the Interior, Jack Horton, requested the Missouri River Basin Commission to assess the availability of water for industrial water marketing. The Commission responded by forming an Ad-Hoc Committee consisting of the Commission Chairman, a federal appointee; Iowa's representative to the Commission, then Commission Vice-Chairman; and one representative each from the Bureau of Reclamation and the Army Corps of Engineers. Two subcommittees were formed - one including all federal members of the Commission and the other including all state members who were appointed by the governors of the ten Missouri Basin States. The report of the Ad-Hoc Committee stated:

"The proceedings of the Ad Hoc Committee did not result in full accord on all issues. However, general agreement was reached among the federal agencies and states on the following items:

1. "Operation of the main stem reservoirs will provide an assured supply of water for industrial purposes of the magnitude herein treated while continuing to provide water for all anticipated beneficial consumptive uses." The report later stated, "Any amount of water up to 3,000,000 acre-feet, for which a potential industrial user can demonstrate a legitimate need, is currently available for marketing." The report also stated later, "If it were necessary to subordinate navigation to serve all beneficial consumptive uses,in accordance with section 16 of the 1944 Flood Control Act, up to 9.5 million acre-feet of water could be made available annually (above current uses) for future beneficial consumptive uses." (emphasis mine) A copy of this report is attached for the Committee's consideration. In considering this information it must be understood that the MRBC was not asked how much water will be used, it was asked how much water could be made available, if necessary, and all states agreed to a minimum of 3 million acre-feet.

To put the amount of water in the Missouri River in clearer perspective, the following figures are illustrative. If ETSI removes 50,000 acre-feet per year, its average withdrawal will be approximately 69 cfs or 0.28% of the 1981 average discharge at the Oahe Dam which was 24,500 cfs. This is less than the measurement error for stream gauges which is approximately 5%. In other words, it would require more than 17 ETSI's before the difference in Missouri River streamflow could even be detected. This corresponds to a necessary diversion of more than 890,000 acre-feet before anyone could detect any difference, let alone claim any injury, no matter how illusory it may be.

Normal operating procedures on the Missouri River make the focus on this imaginary threat even sharper. Under normal operating conditions, the lowest dam on the Missouri River releases 32,000 cfs to maintain full service to navigation. At the end of the navigation season, these releases are normally cut back to 15,000 cfs to maintain, in more than adequate fashion, downstream uses. This action represents a diminution in flow of 53% which is clearly measurable, and yet we are unaware of any downstream complaints that 15,000 cfs of flow are inadequate to meet downsteam needs. In fact, the Ad Hoc Committee felt 6,000 cfs was a great plenty of these purposes.

What then is the probable extent of this illusory threat and how does it compare to the amount that can be measured and to the 53% reduction in steamflow the downsteam states accept for four months a year? In 1978, the MRBC, at the request of the Water Resources Council, prepared the Upper Missouri River Basin Water Availability Assessment for Coal Technology Requirements. In that study, the MRBC predicted the total water demand for coal development in Montana, North Dakota, and Wyoming to be 150,706 acre-feet per year by 1985. 30,348 acre-feet of this was projected for coal slurry use. By 2000, that demand is projected to increase to 237,481 acre-feet/year with 78,056 used by coal slurry pipelines. The total projected annual use for 2000 is about the amount of water saved by cutting full service navigation releases (32,000 cfs) to off-season releases (15,000 cfs) for one week. Realistically, it is impossible to see how, under present conditions, the projected uses for 1985 or 2000 will be necessary. Furthermore, not all of these water requirement will be met by surface water. Wyoming is continuing to consider groundwater requests for energy related consumptive use within Wyoming.

This study by MRBC is the latest projection available, and I am unaware of any other projected uses of water for energy development. There has been a great deal of discussion concerning a scenario for oil shale development on Colorado's western slope presented by Exxon several years ago. That scenario was an attempt by Exxon to demonstrate the commitment of resources necessary to achieve energy independence through oil shale development, but never did Exxon state any intention to develop such a proposal. Nevertheless, the doomsayers and rabblerousers point to Exxon's analysis as proof that energy development will require another 1.7 million acre-feet of water annually from the Oahe Reservoir. It simply isn't so and if such a proposal were actually ever made, the same State of South Dakota that required ETSI to obtain a water right before it could proceed will also pass judgement over such future proposals. I clearly doubt that any proposal of such magnitude would be in the best interest of South Dakota or any other basin state. In summary, the lower basin states are making a mountain out of a mole hill.

Furthermore, the Committee should not be misled into thinking the opposition to ETSI arises because an interbasin transfer is involved. Stephen Krchma, Missouri Assistant Attorney General, has stated, "The fight is really over the general use of water in the basin." New York Times, June 1, 1982. Bill Crews of Iowa Governor Ray's office said, "The issue boils down to consumptive use and how that affects downstream states." Lincoln, Nebraska, Evening Journal, May 21, 1982. In other words, the lower basin states do not want water consumed in the upper basin. The 33 million acre-feet of water that enter the Missouri River annually below Sioux City are not enough to satisfy them; they want the 21,000,000 acre-feet currently leaving the upper basin permanently dedicated to their use also. If the Missouri River is, as the lower basin states insist, a shared resource, then I suggest that those states ought to start sharing.

If, however, there is a challenge to South Dakota's transaction with ETSI on the grounds that it is an interbasin transfer, such a challenge will surely fail. First of all , the United States Supreme Court has made it abundantly clear on at least three occasions that inter basin transfers are not inherently suspect and that they should be judged on no different grounds than other beneficial uses of water. New Jersey v. New York, 283 U.S. 336 (1931); Connecticut v. Massachusetts, 283 U.S. 660 (1931); Wyoming v. Colorado, 259 U.S. 419 (1922). See also Missouri v. Illinois 200 U.S. 496 (1906).

The 1932 New Jersey decision is very close to the case at hand. It was in this case that Justice Holmes wrote his famous lines, "A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it." 283 U.S. at 342.

These lines are often quoted by those opposinq water projects, including those opposed to ETSI. It would do these people well, however, to read the rest of the case.

The next three sentences are instructive.

> New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such power to the destruction of the interest of lower States could not be tolerated. And on the other hand, equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished. Id.

Iowa and Missouri must have used New Jersey's complaint in 1931 as a script for their actions in 1982. New Jersey then claimed that New York's proposed diversion from the Deleware River would impair the river's navigability; riparian owners would be deprived of undiminished flow; undeveloped hydropower potential would be impaired; and pollution assimilation, fishing, industrial, recreational, and municipal users of the water would be injured.

In response to these claims, Justice Holmes reduced New York's proposed diversion to 1,350 acre-feet per day. Based on the historical average flow of the Deleware (11,750 cfs or 23,300 acre-feet/day) the Supreme Court allowed in one case alone the diversion of 6% of the Deleware to the Hudson River Basin saying,

> "The removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds. In fact, it has been allowed repeatedly and has been practiced by the State concerned. 283 U.S. at 343.

Secondly, it should be made clear that this use of water by ETSI is not an interbasin transfer in the traditional sense. The water will be put to use (consumed) in the Missouri River Basin while developing a Missouri River Basin resource-Wyoming coal. The fact that the water does in fact, cross the basin boundary on its way through Kansas does not make this use any more evil than a brewery in Omaha that ships beer to eatern Iowa. In fact, this transfer of water out of the basin really ought to be compared to the 54,000,000 acre-feet of water that leaves the Missouri River Basin each year above St. Louis. Compare the increased navigation releases at Gavins Point Dam each year (17,000 cfs or 8,091,000 acre-feet over eight months) to water ETSI will use in its coal slurry pipeline. The 8,091,000 acre-feet of additional navigation water in 1980 carried 3,009,612 tons of cargo. This does not include contributions to the Missouri downstream from Sioux City - 33,000,000 acre-feet annually. With 20,000 acre-feet ETSI will carry 37,500,000 tons of coal. In 1980, Missouri River navigation water carried 0.37 tons per acre-feet of water consumed; ETSI will carry 1,875 tons of coal per acre-feet of water. This is a 500,000 per cent increase in water use efficiency, and Missouri and Iowa claim coal slurry pipelines are a waste of water!!

Finally, we must note that the City of Springfield, Missouri transfers water out of the Missouri River Basin every year. While this transfer is entirely necessary to distribute water throughout the town, it nevertheless amounted to about 16,800 acre-feet of water in 1978 transported out of the basin. There is no difference between Springfield's need to divert water out of the basin in order to get it to the other side of town, and South Dakota's need to transport water to Wyoming in order to deliver it to western communities en route. In fact, our need may be greater since some towns and ranches to be served by ETSI, have radium levels in their water supplies that are 3 to 30 times the EPA primary drinking water standards.

The fact of the matter is that inter basin transfers are common in the Missouri River Basin. Such exchanges result in a new import of 644,000 acre-feet each year.

More specifically, I want to address the Missouri and Iowa remarks about the 1944 Flood Control Act and those states' claimed need to protect state prerogatives under the law. The Iowa and Missouri remarks presented on May 10, 1982 intimate that the use of Missouri River water by ETSI was initiated at the federal level. Let me make the record perfectly clear that there is no federal power to allocate Missouri River water that is not subservient to state requirements. Congress has wisely chosen not to exercise the full extent of its powers in this regard. ETSI's use of Missouri River water is contingent upon a water right from the State of South Dakota, and the federal water service contract allowing the storage of that water in a federal reservoir specifically says so. Iowa and Missouri apparently wish to preserve their options with respect to Missouri River allocation. I submit the option to say only "no" is no option at all and that those options Iowa and Missouri wish to preserve to themselves must also be conceded to their sister state of South Dakota.

Furthermore, Iowa points to section 6 of the 1944 Flood Control Act as giving the Army Corps of Engineers the authority to contract surplus waters for domestic and industrial uses. Iowa's reliance on this provision begs two questions: What are surplus waters and is this power granted in section 6 exclusive?

If, as Iowa suggests, surplus waters are those not necessary for project purposes, then the amount needed by ETSI clearly it not surplus under that definition. The four dams in South Dakota were authorized to store and provide water for about 900,000 acres of irrigation in South Dakota. That service remains a project function today. In contrast, diversions to irrigate only 190,000 acres are currently authorized. The result is that there is water storage space to irrigate about 710,000 acres in South Dakota for which no diversions are currently authorized. As Iowa Attorney General Miller correctly pointed out on May 10, 1982, section 9 (c) of the 1944 Flood Control Act provides that the reclamation portions of the Pick-Sloan Plan would be governed by federal reclamation law. Federal reclamation law includes section 9 (c) (2) of the Reclamation Project Act of 1939 (53 Stat. 1187) which specifically authorizes the use of reclamation project facilities for other purposes during interim periods. Clearly there is sufficient water storage in the Oahe Reservoir allocated to irrigation use to cover ETSI's proposed use. If Iowa insists that ETSI's water is surplus to that authorized purpose then she should see to it that the irrigation storage is , in fact, used for irrigation. That has not, however, been Iowa's record. I submit that the State of Iowa cannot claim this water to be surplus water subject to section 6 of the 1944 Flood Control Act, and at the same time oppose the development of the authorized functions of the Oahe Reservoir necessary to make ETSI's water fit Iowa's definition of surplus.

In other words, if ETSI's water is surplus to the irrigation function of the four dams in South Dakota, 900,000 acres of South Dakota land should be under irrigation right now as a result of federal diversions. South Dakota cannnot, however, be denied at the same time, both its irrigation development and the interim use of those facilities for other purposes.

In response to the claim of Iowa and Missouri that the Department of Interior cannot contract to store water allocated by the State of South Dakota in space originally authorized for and still dedicated to reclamation use in South Dakota, it is clear that ETSI's water in not surplus under section 6 of the 1944 Flood Control Act and that section 6 is, in fact and law, not exclusive in its operation.

Before closing,I would like to point out to the Committee the outlines of what is truly the great double cross of the Twentieth Century. When the 1944 Flood Control Act was passed under a historic compromise that provided for flood control downsteam, irrigation upstream and navigation and hydropower consistent with other uses, see Sen. Doc. 247, 78th Congress, and Sec. 1 (b) cf 1944 Flood Control Act, it was done under the premise that both the upper basin and the lower basin would benefit in substantial economic terms. In contrast to total federal control of the river as was exercised in the creation of TVA and the enactment of the Boulder Canyon Project Act, section 1 of the 1944 Flood Control Act reserved to the states "their interests and rights in water utilization and control."

To date, as Governor Janklow's attached address shows, the downstream states have benefitted from the prevention of $1.537 billion of flood damages, Iowa and Nebraska consume more power generated in South Dakota than does South Dakota, barges move millions of tons of traffic on the Missouri every year but not to South Dakota, and to add insult to injury, downriver areas have unwittingly recovered more prime cropland (188,000 acres) along the river because of channel stabilization and flood control, H.A. Dolphin, Missouri River: Challenge and Opportunity, The Water Spectrum, Fall, 1982 at 32, than have been irrigated under the Pick-Sloan Plan in South Dakota and North Dakota together (33,100 acres). Table 1, Sec. III, Customer Brochure, Dec. 1982, Western Area Power Administration. In fact, not one gallon of Missouri River water is used for irrigation under Pick-Sloan in South Dakota or North Dakota. Furthermore, Nebraska, who joins Iowa and Missouri in complaining about South Dakota's "interbasin transfer" has already developed 222,800 acres under Pick-Sloan, id, in addition to its millions of acres under private development but has yet to complain about the 505,000 acre-feet imported yearly into the Platte River Basin upstream in Colorado undoubtedly to Nebraska's indirect if not direct benefit. (Figures from Missouri Basin States Association Hydrology Study).

The President's fiscal year 1983 budget for the Corps of Engineers construction alone requests $11 million, $69 million, and $9.5 million for Iowa, Missouri, and Nebraska, respectively. Putting the mainstream dams aside, Missouri will receive more federal money for water projects in FY83 than South Dakota has received since statehood. At the same time, Iowa's Representative Bedell continuously attempts to deauthorize the reclamation authorization for the Oahe Unit in South Dakota.

Mr. Chairman, South Dakota recognizes that its promised reclamation development has not yet occurred. She is willing, however, to follow lengthy legal procedures to see that development materializes in spite of the fact that recurrent droughts will continue to deny South Dakota livestock the food and water necessary to survive and will continue to drive South Dakotans from their farms. We can even understand, although not accept, the fact that our downstream neighbors, now that they have prospered so well under the Pick-Sloan program authorized in the 1944 Flood Control Act, no longer find it necessary or politically expedient to support a commensurate amount of development for the economy of South Dakota. It is unforgiveable and incomprehensible, however, for Iowa and Missouri to don the costume of state's rights and come before this Congress to oppose South Dakota's exercise of her sovereign rights, reaffirmed again and again in federal law, that cannot possibly harm anyone and that will not require one new federal dollar for its implementation. Such duplicity is unprecedented and should be recognized for what it is by this Committee.

Incidentally, at least one lower basin expert, hired by the Iowa General Assembly to analyze this situation, agrees that South Dakota has been short-changed. David Osterberg in The Cost to Iowa of Diverting Water from the Misosuri River, January, 1982 said:

The ETSI slurry pipeline, the subject of many recent newspaper articles, has come as a warning shot to Iowa. Coming in a low water year when navigation has been reduced, talk of decreasing the flow made citizens and policy-makers aware of all plans to make the Missouri into a smaller river.

Governor Janklow of South Dakota has claimed that the new pipeline will remove water equal to one-tenth the annual evaporation on Lake Oahe and that downstream users should "quit being selfish" about the Missouri (UMC 1981, p. 8,9). There is merit on both counts: (1) if 50,000 fewer acres flowed past Sioux City in a year, river gauges would have trouble measuring the loss: (2) South Dakota has a claim on water from the River. Iowa has gained the benefits of flood control, farmland creation, navigation and cheap hydropower. Iowa has also suffered the destruction of thousands of acres of wildlife habitat and recreation areas and has a continuing serious problem with degradation. However, Iowa has received the benefits promised. South Dakota has not.

South Dakota receives power from the Missouri River dams and enjoys four "Great Lakes" which are reputed to have the best walleye fishing south of Canada. However, South Dakota has not received the irrigated acres it was promised to make up for the 500,000 now under four Corps-built lakes.

All Basin states would like to see the Missouri used within the Basin. This remains true even after the ETSI deal. South Dakota agreed to the ETSI pipeline first because it prevented ETSI from taking groundwater from the Madison formation and drawing down the potable water sources of South Dakota towns bordering the ETSI pump field in Wyoming. Second, the pipeline will carry water to western South Dakota towns along its path. South Dakota is protecting its water resources.

In closing, Mr. Chairman, I would like to comment briefly on section 6 of S.1844 which is the real subject of this hearing. South Dakota takes no position, pro or con, on the grant of eminent domain to coal slurry pipelines. She does, however, have a vital interest in the protection of states' rights with respect to water allocation. I have received both the original version of section 6 and Seantor Wallop's proposed amendment. While the original was good, I believe Senator Wallop's amendment is better, and I urge its adoption. The only improvement I can suggest is that term "Federally reserved water" as used in Senator Wallop's proposed new provision "d" be defined to be sure it is limited to that water, or water right, which is expressly or impliedly reserved by the United States for use in connection with land removed from the public domain and reserved by the United States for Indian, military, forest, or other federal purposes.

Thank you very much for this opportunity to testify here today.

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REPORT OF THE AD HOC COMMITTEE ON WATER MARKETING

RECOMMENDATIONS ON ISSUES
INVOLVING M & I WATER MARKETING
FROM
THE SIX MAIN STEM FEDERAL RESERVOIRS
ON THE MISSOURI RIVER

PREPARED AT REGIONAL LEVEL BY:

The Ad Hoc Committee on Water Marketing

Members - MRBC Chairman
MRBC Vice-Chairman
Department of the Interior
Department of the Army

July 1, 1974

Federal Coordinating Officer
Missouri River Basin
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of the Interior
Washington, D.C. 20240

JUL 1 1974

Mr. Charles R. Ford, Chief
Office of Civil Functions
U.S. Department of the Army
Washington, D.C. 20310

Dear Messrs. Horton and Ford:

As requested in your letter of December 13, 1973, to Mr. John Neuberger, Chairman of the Missouri River Basin Commission, an Ad Hoc Committee on Water Marketing from the Missouri River main stem reservoirs was formed to examine issues involving municipal and industrial water marketing from the six main stem federal reservoirs on the Missouri River. The Committee was asked specifically to provide answers and recommendations relative to the four questions raised in your letter. During its deliberations, other related issues which arose were considered. In considering these matters, the Committee organized two components -- a Federal subcommittee composed of the Chairman and representatives from the Corps of Engineers and the Department of Interior, and a State subcommittee composed of representatives from each of the ten basin states and chaired by the MRBC Vice-Chairman. Three Federal technical work groups were also formed to consider questions and to prepare reports on the availability of water for municipal and industrial purposes, the marketing and pricing aspects, and the legal issues involved. The Committee functioned through a series of meetings of the Ad Hoc Committee and its subcommittees and work groups and through preparation and consideration of a number of position papers on important issues.

The proceedings of the Ad Hoc Committee did not result in full accord on all issues. However, general agreement was reached among the Federal agencies and States on the following items:

1. Operation of the main stem reservoirs will provide an assured supply of water for industrial purposes of the magnitude herein treated while continuing to provide water for all anticipated beneficial consumptive uses.

2. Upon request, industrial water supply contracts will be negotiated with the individual States. These States would then market the water to industrial

FEDERAL PARTICIPANTS
WATER AND RELATED LAND PLANNING

Atomic Energy Commission
Department of Commerce
Department of Agriculture

Department of Health
Education and Welfare

Department of Housing
and Urban Development

Department
of Transportation

Environmental
Protection Agency

users. However, if a State elects not to enter into an industrial water supply contract with the United States, contracts will be negotiated with the individual industrial users. Under either arrangement, users will be required to follow State law and regulations and obtain a State water permit.

3. Charges for industrial water supply withdrawn from the main stem reservoirs will not be established until contract negotiations are completed. These charges must be sufficient to (a) offset the losses and costs sustained (such as power losses or replacements) due to the reduced flows, thereby maintaining the financial integrity of the Pick-Sloan Missouri Basin Program Account; and (b) to cover increased costs such as NEPA incident to the industrial marketing program. The charge will be the same for industrial water from the six main stem Missouri reservoirs. This charge will be subject to renegotiation by the parties upon expiration of each 5-year period throughout the term of any contract.

4. The scope of these contracts will be limited to provision of industrial water supply directly from the Missouri River main stem reservoirs. Thus, municipal water supply is excluded as well as supplies from tributary reservoirs.

5. Long-range policy matters related to water marketing from the Missouri River Basin should be referred to the MRBC for study and further recommendations.

In view of agreement on the foregoing items, the Committee submits answers to the four questions raised in your December 13, 1973, letter, as follows:

Question 1

How much water is it acceptable for the States and the Federal Government to market now?

Any amount of water up to 3,000,000 acre-feet, for which a potential industrial user can demonstrate a legitimate need, is currently available for marketing. Under current (1974) conditions of upstream water use, the average annual streamflow of the Missouri River at Sioux City, Iowa, is about 21.4 million acre feet. Studies by the Water Supply Technical Group project that 1.4 million A.F. of water would be required annually by the year 2020 for the most likely industrial development and 3.0 million A.F. sometime beyond the year 2020 for a maximum likely development in the upper Missouri River Basin. These depletion estimates are approximately 30 percent greater than those shown in the current studies of the Northern Great Plains Resource Program in the year 2000. The projected streamflow depletions due to industrial developments, irrigation and other purposes as well as surplus water availability, are shown on Attachment A.

Question 2

How much water is available for industrial use in the long run?

The water supply of the Missouri River, as controlled by the main stem reservoir system is adequate to meet all foreseeable beneficial consumptive uses, including the projected maximum likely ultimate use (sometime beyond the year 2020) of up to 3 million acre-feet of water annually for industrial purposes. Reservoir regulation studies conducted for the period of hydrologic record since 1898 have demonstrated that the main stem reservoir system can be regulated to supply the most probable consumptive use requirements through the year 2020 (as illustrated in Attachment A). Under these conditions an acceptable degree of service to navigation could be maintained. Hydropower peaking would not be affected to any major degree by these consumptive uses, but energy generation would be reduced significantly. If it were necessary to subordinate navigation to serve all beneficial consumptive uses, in accordance with Section 1b of the 1944 Flood Control Act, up to 9.5 million acre-feet of water could be made available annually (above current uses) for future beneficial consumptive uses. Use of this amount of water would still permit minimum releases from the reservoir system of 6,000 cubic feet per second for municipal water supply intakes, water quality control, recreation, fish and wildlife and other purposes. The Missouri River Basin Commission is currently updating the 1969 Framework Study. This and other studies and developments in the Basin over time will permit more specific determinations of water uses and requirements.

Question 3

What advice can be offered relative to existing applications for industrial water before the North Dakota Water Board?

In keeping with the general Ad Hoc Committee agreements, the United States may negotiate a contract with the State of North Dakota for a designated amount of water from the Garrison Reservoir and/or the Oahe Reservoir. In the event the State elects not to enter into such a contract, the United States will then contract directly with the individual applicants and require as one of the conditions precedent that the individual applicant obtain a State water permit and be governed by all other State and Federal laws and regulations.

Question 4

What is the unit price at which water for municipal and industrial uses should be marketed by the Federal Government from the six reservoirs?

The consensus of the Federal and State members on the Ad Hoc Committee is that a higher price should be established for industrial water users than for municipalities which return to the system a considerable portion of the water withdrawn. Historically, municipal water supply prices have been based largely on costs and the States are desirous of continuing this practice and prefer to omit municipal water supply issues from further consideration by the Committee. The exact price for industrial water supply withdrawn from the main stem reservoirs is subject to further determination during the anticipated contract negotiations between the Federal Government and the various States or industrial users. General agreement has been reached that the price of this water should be sufficient to maintain the financial integrity of the Pick-Sloan Missouri Basin Program Account and to cover increased costs incident to the industrial marketing program.

This would require that the losses sustained due to the reduced flows resulting from water consumption by industrial users should be offset by industrial water revenues. Based on federal technical work grouppapers and allied studies, it is estimated that an industrial water service price to the States will be in range from $3 to $25 per acre-foot of water withdrawn from the reservoir. Further, State costs will be involved in determining total charges to the user.

In the course of the Committee's deliberations, it left unresolved the following matters which may require additional study and consultation within the framework of existing coordination channels:

1. The States and the Federal agencies recognize that each within its own sphere of governmental powers has certain rights to the flow of water into and out of the main stem reservoirs. These rights were not defined or quantified.

2. No agreements were reached concerning water withdrawn from tributary reservoirs or from open river reaches between or below the main stem reservoirs. However, as authorizing legislation varies, the marketing policy for municipal and industrial water from the tributary reservoirs need not be the same as for the main stem reservoirs.

3. Agreement was reached initially by the Federal Subcommittee that water marketing from the main stem reservoirs should be by contract between the United States of America acting as vendor through the Secretary of the Army as lead agency with authorizations under Section 6 of the Flood Control Act of 1944, with the Secretary of the Interior as concurring agency and with alternative authorizations under Section 9 (c) of the Flood Control Act of 1944, and all discussions with state representatives were on this basis. Subsequent divergence of views leave recommendations regarding designation of the marketing agency unresolved. Both the Dept. of Army and the Dept. of Interior agree that the 1958 Water Supply Act could be used by the Dept. of Army as the Congressional authority for marketing industrial water from the main stem reservoirs, but the employment of this Act would require major changes in the approved cost allocation with serious impacts on present power rates, and is undesirable. If the surplus water provisions of Section 6 of the 1944 Flood Control Act were used as the authority for water marketing, the Dept. of Army would be the marketing agency. If Section 9 (c) of the 1944 Flood Control Act were applied, the Dept. of Interior would market the water. However, collaborative action will be taken under either course. There remains unresolved at this time the determination which of the two departments should assume the lead role.

The Ad Hoc Committee has not been able to reach universal agreement on several major water marketing issues, namely the marketing agent, the marketing authority, and the exact industrial water charges. However, progress has been made in several areas and there is now a better overall, State-Federal understanding of the various problems and issues. Agreements have been reached on the availability of water, the desirability of marketing industrial water through the States, and the exercise of State control through the issuance of water permits. These agreements should assist in resolving remaining issues through

Messrs. Horton and Ford
Page 5

normal agency channels. In view of the current energy situation and the Nation's commitment to developing energy self-sufficiency in the 1980's, expeditious action is needed by all concerned to permit water marketing to further the development of the Missouri River Basin's energy resources. Therefore, the United States should proceed immediately to negotiate contracts with the States for the withdrawal of water from the main stem reservoirs for industrial purposes.

Sincerely yours,

AD HOC COMMITTEE ON WATER MARKETING

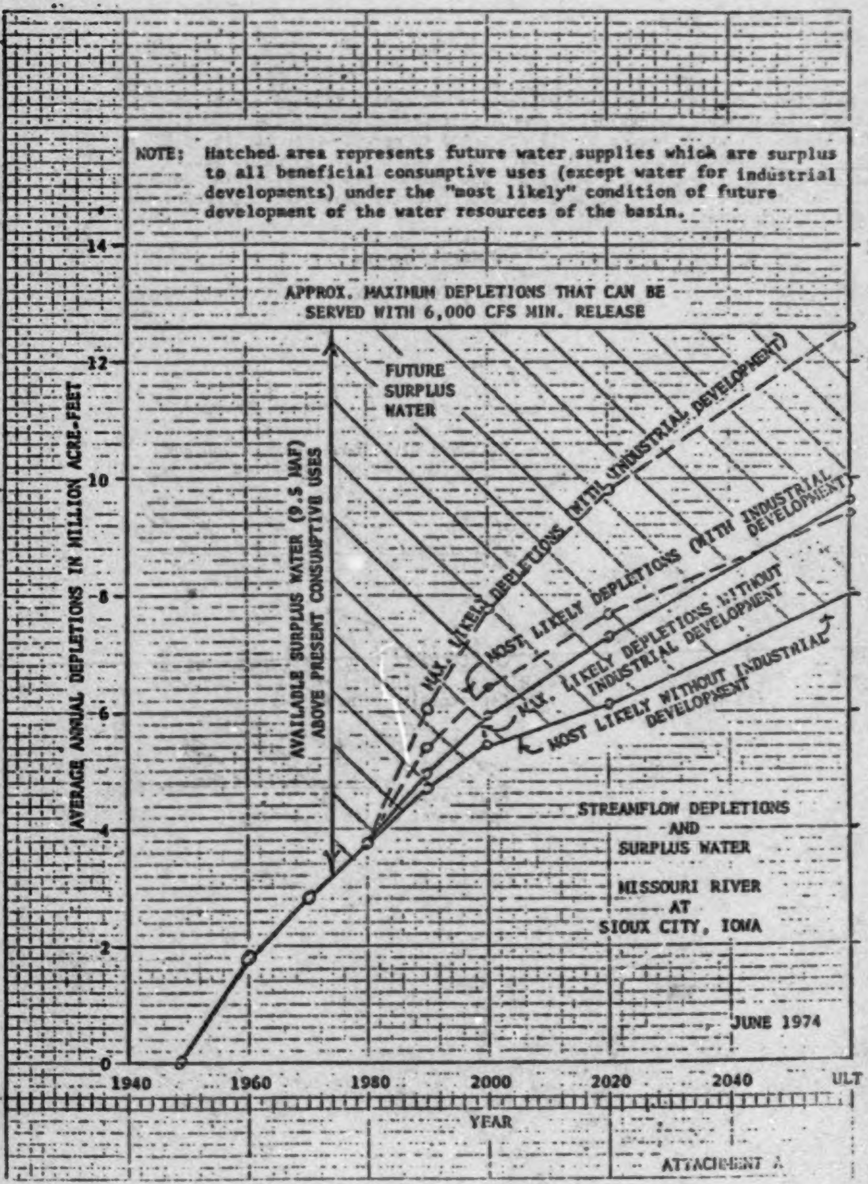
BY

John W. Neuberger
John W. Neuberger, Chairman
Missouri River Basin Commission and
Chairman, Ad Hoc Committee

Donald L Olmstead fr
William C. Brabham, Vice-Chairman
Missouri River Basin Commission

Philip T Boerger
Brigadier General Philip T. Boerger,
Department of the Army

Paul L. Harley
Paul Harley,
Department of the Interior


NOTE: Hatched area represents future water supplies which are surplus to all beneficial consumptive uses (except water for industrial developments) under the "most likely" condition of future development of the water resources of the basin.

STREAMFLOW DEPLETIONS AND SURPLUS WATER

MISSOURI RIVER AT SIOUX CITY, IOWA

JUNE 1974

ATTACHMENT A

United States Department of the Interior
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DEC 18 1973

Dear Mr. Neuberger:

A group of policy officials representing the Department of the Interior and the Department of the Army recently met in Washington to discuss Federal marketing policies for municipal and industrial water uses in the Missouri River Basin.

This group requests that you establish a regional Ad Hoc Committee to examine issues involving municipal and industrial water marketing from the six Federal reservoirs on the Missouri River — Fort Peck, Garrison, Oahe, Big Bend, Gavins Point, and Fort Randall. We suggest that the Committee be composed of yourself; the Missouri River Basin Commission Vice-Chairman, representing the States; a representative from the Department of the Army and from the Department of the Interior.

Specifically, we suggest that the Committee provide answers and recommendations relative to the following questions:

(1) How much water is it acceptable for the States and the Federal Government to market now?

(2) How much water is available for industrial uses in the long run?

(3) What advice can be offered relative to existing applications for industrial water before the North Dakota Water Board?

(4) What is the unit price at which water for municipal and industrial uses should be marketed by the Federal Government from the six reservoirs?

We would appreciate a report from you on this subject by February 1, 1974.

Sincerely yours,

Jack O. Horton
Jack O. Horton
Assistant Secretary
of the Interior

Charles R. Ford
Charles R. Ford
Chief
Office of Civil Functions
U.S. Department of the Army

Mr. John W. Neuberger
Chairman, Missouri River
Basin Commission
10050 Regency Circle
Omaha, Nebraska 68114

REMARKS OF WILLIAM J. JANKLOW, GOVERNOR, STATE OF SOUTH DAKOTA PRESENTED TO NEW SOURCES OF WATER FOR ENERGY DEVELOPMENT AND GROWTH; INTERBASIN TRANSFERS, AT UNIVERSITY OF COLORADO SCHOOL OF LAW, BOULDER COLORADO, JUNE 8, 1982.

SOUTH DAKOTA AND THE ETSI EXPERIENCE

Introduction

In this paper I would like to take the opportunity to remove from the emotional arena South Dakota's experience with ETSI Pipeline Project and its coal slurry pipeline proposal and to explain to fellow practioners of the legal profession, in the context of a rational examination, what it is South Dakota and ETSI have done. In doing so, I am confident that the attendees of this conference, as fellow professionals, will agree that South Dakota was placed in a position that a decision had to be made and action had to be taken. I am also confident you will agree that the decision South Dakota made was the correct one under the circumstances. In presenting these remarks here today, I would like to discuss South Dakota's impression of why coal slurry pipelines are becoming a force in the coal transportation market, why the Missouri River is an attractive water source from the standpoint of both ETSI and South Dakota, why South Dakota was drawn into this relationship with ETSI, what the basic contract between South Dakota and ETSI provides, what it is the downstream states are complaining about, and what the law of the 1944 Flood Control Act and Federal law respecting inter-basin transfers really is.

Why Coal Slurry?

In an address to the American Public Power Association delivered on May 7, 1980 Mayor Lyla Cockrell of San Antonio related her city's experiences in its attempts to convert from natural gas to coal in its municipal electric utility. Mayor Cockrell indicated that things went very smoothly in designing the equipment to convert to coal and in obtaining long-term coal contracts from Sun Oil Company at its Cordero Mine near Gillette, Wyoming. With respect to the transportation of that coal from Wyoming to Texas, however, the Mayor related an entirely different story.

> "Unfortunately, this story is not the same for the railroad freight rate. When we were looking for coal leases..., the railroad at point of origin, quoted us a price of $7.90 a ton for hauling the coal 1630 miles from Wyoming to Texas by unit train, with [San Antonio] furnishing some $30 million dollars of coal cars. Subsequently, when the commitment was made to the Cordero Mine, [the railroad] withdrew its offer and began quoting prices of as high as $16 a ton. When no agreement could be reached we were ready to stockpile coal, we petitioned the Interstate Commerce Commission to set a rate, and they did so in October, 1976, at $10.93 a ton. In the next two yaers, several freight rate increases were granted until the rate reached $12.42 a ton. It became apparent that railroad lobbyists were hard at work. Then, on December 1, 1978, the ICC granted a rate increase to $16.12 per ton. Eight additional rate increases since that time have driven the freight rate to $20.25 per ton. There have been five increases since October 1 of last year!"

These remarks by the Mayor of San Antonio are sufficient argument to explain why some people feel there is a need for competition in the coal transportation market.

ETSI believes that it has a competitive advantage over railroad transportation because of the capital intensive nature of coal slurry pipelines. Chart I is a graph taken from a presentation by Frank Odasz, of ETSI given to the Interstate Oil Compact Commission in 1981. It represents the claim by ETSI that 70% of a coal slurry pipeline's operating costs go to debt service and are fixed. Only 30% of slurry pipeline operating costs are variable and, therefore, are subject to inflation. Railroads on the other hand currently have only 15% of their operating costs fixed and 85% of their operating costs are variable and are subject to inflation. As Chart I shows, during an inflationary period the mode of transportation with the highest percentage of fixed cost gains a considerable competitive advantage. Under ETSI's calculations, at a 5% rate of inflation as is represented by the 1979 GNPD, the cumulative savings in operating costs over a 30 year period represents $32 billion.

From our perspective, we are receiving arguments from both sides. The railroads claim that slurry lines are so expensive that they will never get off the ground and, in fact, the first coal slurry line ever constructed, they claim, was put out of business by railroad competition. ETSI on the other hand claims that the first slurry line located in Ohio did, in fact, compete with railroad transportation but stopped its operation for other unrelated reasons. Our only conclusion is that the first coal slurry line resulted in the railroads' initiating unit train transportation for coal and consequently lowering rates for coal customers.

Why Missouri River Water?

Chart II is an outline map of the Missouri River Basin. It covers all of Nebraska and portions of nine other states. The basin covers 1/6 of the total land area of the United States and also extends into Canada. On an average annual basis and based upon 1970 estimated levels of depletion, the annual flow of the Missouri River at Sioux City, which is the traditional dividing line between the upper and lower basin, is 21 million acre-feet of water per year. The River is a gaining river and by the time it empties into the Mississippi River just upstream from St. Louis, the average annual flow is approximately 54 million acre feet of water per year. The net gain, therefore, averages 33 million acre feet of water per year between Sioux City and the river's mouth.

This is a substantial amount of water in comparison to amounts projected to be necessary for energy development. The natural flows of the Missouri River, however, have been enhanced by the construction of 6 reservoirs on the mainstem of the river itself. Four of those reservoirs are located in South Dakota, 1 in North Dakota and 1 in Montana. The total storage capacity of those reservoirs is approximately 74 million acre feet of water. Chart III shows the actual level of storage in those reservoirs during 1981 and the projected storage levels during the remainder of 1982. On the right hand side of the chart, the bottom line represents a storage forecast if precipitation for the remainder of the year is in the lower 10% of the historical experience. The next to the bottom line represents the storage forecast if precipitation for the remainder of the year is in the lower quartile, the middle line represents the storage forecast for median precipitation, the next to the top line is the forecast for upper quartile precipitation, and the top line is the forecast for precipitation in the top 10% of the historical experience. As the Chart shows at the beginning of March in 1982, there were still approximately 52 million acre feet of water in storage in the main stem system on the Missouri River. This represents more than 2 years' average flow of the Missouri held in storage in South Dakota, North Dakota and Montana.

The purposes of these dams is navigation, flood control, irrigation and hydropower development. Chart IV shows a comparison in year 1975 of the actual flows of the Missouri River at Sioux City, Iowa, with the flows that would have naturally occurred in the absence of the mainstem reservoirs. Flood stage at Sioux City is approximately 90 thousand cubic feet per second. As you will note, for most of the months of May, June, and July the Missouri River at Sioux City would have been at or above flood stage. Because of the dams, however, this water was held back and at no time did the actual flow ever exceed flood level. Furthermore, the natural flows during the last portion of the navigation season in September, October, and November would have fallen below those flows necessary to maintain navigation on the Missouri River. Actual releases from the dams, however, maintained flows at a level very close to 65,000 cubic feet per second and a full service navigation season was provided up until the end of November. A similar chart for 1980 and 1981 is presented in Chart V. Chart VI shows the power generated by the Missouri River mainstem system. The receipts from this power are used to repay the federal government for its investment in the power and irrigation portions of the mainstem reservoirs.

Chart VII shows the flood damages prevented by the mainstem reservoirs. As of 1981, the cumulative savings in flood damages estimated by the United States Army Corps of Engineers is 1.537 billion dollars. This total exceeds the money invested by the United States Government in the mainstem dams for flood control purposes. These benefits are received almost entirely by the downstream states. Note that 1978 represented a savings of $450 million of flood damages that never occurred. In exchange for this flood protection downstream, the State of South Dakota gave up approximately 530,000 acres of prime farm land that is now under water and is contributing little or nothing to the South Dakota economy.

Chart VIII shows the navigation on the Missouri River through 1982. The top portion of the bar represents navigation tonnage moving in an upstream direction. The remainder of the bar represents navigation tonnage moving in a downstream direction. As is evident from the fact that little or no navigation occurred in the years prior to 1954 when the first dams were closed, this navigation would not be taking place without the construction of those dams.

The question arises from South Dakota's standpoint: Who is benefitting from the construction of these reservoirs? They were all authorized in the Flood Control Act of 1944. In addition to the flood control and navigation benefits downstream which have been realized, the 1944 Act also provided and authorized the irrigation of 806,000 acres of land in South Dakota, 1 million acres of land in North Dakota and a similar amount in Montana. Those irrigation developments have, to the largest extent, never been achieved. Not one gallon of Missouri River water is being used for irrigation in South Dakota under a facility authorized by the 1944 Flood Control Act. In exchange for this, the overwhelming majority of the power generated in South Dakota on these dams is exported out of state. Chart IX shows the distribution of power from South Dakota dams during federal fiscal year 1980. This allocation changes slightly from year to year but its basic point that other states receive more power benefits from the dams constructed in South Dakota than does South Dakota continues to be true year after year after year.

While the loss of 530,000 acres of land in South Dakota is providing substantial navigation, flood control and power benefits for our neighboring states, South Dakota itself is receiving little or no benefit in a substantial economic sense from the construction of those reservoirs. Chart X is a representation of water used in the member states of the Western Governor's Policy Office. As will be noted, no state in that organization uses less water than South Dakota. In fact, our sister State of Nebraska who is complaining loudly about South Dakota's relationship with ETSI is one of the larger water users among the western states. This chart shows in a graphical manner why at the time South Dakota was confronted with a need to make a decision on ETSI, it was felt that the State should do those things which will enable it to gain benefits from the development under the 1944 Flood Control Act that other states downstream from us have been receiving for the last 20 years.

One thing that was reserved to the State of South Dakota was the right of the upper basin states to allocate water pursuant to their state laws. In fact, the 1944 Flood Control Act is notable as an expression by Congress of State's rights in the allocation of waters during an era when TVA and the Boulder Canyon Project Act represented substantial steps in the opposite direction - total federal control of the allocation and use of water resources. Chart XI shows the language of Section 1(b) of the 1944 Flood Control Act. That section was enacted into law at the insistence of the western states and is commonly known as the O'Mahoney-Milliken Amendment. Its plain language is that states lying wholly or partially west of the 98th meridian (South Dakota and the upper basin states) have the right to allocate the waters in their states for beneficial consumptive uses even if such allocation represents an impairment in navigation uses of the river.

It is interesting to note that there was no doubt in the mind of Congress when this provision was enacted that this is exactly what Congress intended. In fact, Senator Milliken stated during the hearings on the 1944 Flood Control Act:

> "As I pointed out the other day, you take navigation here. The people are figuring on a 9 foot channel or a 12 foot channel and, assuming, Congressman, that that reflects a conflict of water use-I don't know whether it will or not; the figures are so conflicting here that I cannot reach a decision. But assume that it would. In the meantime

> they have built their barges, they have built their docks, they have established their track sidings. They have built their wharves, they have built all their accessories, and then they would be claiming to be a vested interest recognized by Congress. Now these are the things that we got to guard against. (Hearings on HR 4485, Senate Commerce Committee, 78th Congress, 2d Sess., at 605.)

In addition, remarks from other Congressmen indicated clearly that they understood the meaning of this provision. Representative Lemke of North Dakota simply stated, "We are not going to take water from the people in the states where it originated so that some fellow may float a yacht down the lower Mississippi Valley, while the people and their cattle in the upper regions go hungry on account of the lack of food and water." (Cong. Rec., 78th Cong., Second Sess., page 4213) Representative Dirksen from Illinois stated, "Now come the folks from this area, where water is a priceless commodity, and say that before we take away all their water for navigation purposes to sustain a barge or a vessel that may haul commodities, we believe preference should be given to beneficial consumptive." Id. at 4215. Senator O'Mahoney himself stated that "the purpose has been at all times to protect the historic and traditional rights of the people of the west to use the waters rising in the west in a manner that has been recognized by law and by court decision for almost 100 years." Id. at 8420. There can be little doubt that the meaning of the O'Mahoney-Milliken amendments was to guarantee to the states the right to allocate waters within their boundaries without regard to the impact of such allocation on navigation.

Why ETSI and South Dakota?

In 1974 the Wyoming State Legislature authorized the Wyoming State Engineer to issue groundwater permits from the Madison formation to ETSI. Those permits, as eventually issued, entitled ETSI to withdraw an average of 15,000 acre feet of water a year from the Madison formation. Individual yearly withdrawals could go up to 20,000 acre feet per year as long as the long term average was not violated. Chart XII is taken from the Bureau of Land Manangement Environmental Impact Statement on the ETSI Coal Slurry Pipeline. It shows the relative location of ETSI's proposed well field in Niobrara County. The well field is located immediately adjacent to the South Dakota-Wyoming border. The concentric lines on the chart indicate the number of feet in drawdown that would be experienced by the potentiometric head in the lifetime of the ETSI project. It will be noted from the chart the City of Edgemont's water level would drop approximately 275 feet. This would necessitate the drilling of new wells not only for Edgemont but for numerous ranchers and other communities in the area. In addition, flow in the Fall River which runs through the municipality of Hot Springs would be reduced to such an extent that Hot Springs wastewater treatment costs would increase by approximately $100,000 per year. Finally, the flow reductions would also affect environmental and esthetic values in streams in the Black Hills of South Dakota. The Black Hills are located within and around the Madison outcrop in Custer, Pennington, Lawrence and Meade Counties in South Dakota. This potential use of groundwater in Wyoming presents an unacceptable threat to existing uses of water in the State of South Dakota. In order to prevent this potential damage, the State found itself facing long and protracted litigation that may have preserved the status quo but would not have presented any net gain to either South Dakota, Wyoming or ETSI.

In addition to the need to eliminate ETSI's threat to South Dakota's Madison Aquifer water supplies, there exists in that area of South Dakota between the Oahe Reservoir and the Black Hills a very real need for good quality drinking water for both livestock and humans. In fact, some communities and ranches in this area have naturally occurring contents in their water supplies that are 3 to 30 times the EPA primary drinking water standard. It has long been the dream of western South Dakota residents to bring Missouri River water westward to cure these and other deficiences in their water supplies but physical and, ultimately, economic barriers prevented this from happening. It soon became apparent to the western residents of our State that the only practical means of achieving their dream was through a massive subsidy either from the Federal government or from the emerging energy industry in Wyoming.

Finally, as is apparent from the preceeding section of these remarks and the accompanying charts, South Dakota has received little that was authorized under the Pick-Sloan Plan that has provided so much benefit in navigation, flood control, and hydropower to the downstream states. While Nebraska which gave up virtually no land to the Missouri River Reservoirs has received 222,800 acres of Pick-Sloan irrigation projects, not one acre of South Dakota land is irrigated from the Missouri River by a Pick-Sloan diversion. With cost sharing rapidly becoming the word of the day in Federal water development, it was apparent that South Dakota's chances of obtaining Pick-Sloan irrigation development were going to get slimmer unless she developed a revenue source comparable to that provided by Nebraska's irrigated economy and Wyoming's, Montana's and North Dakota's coal, oil and gas reserves.

South Dakota's relationship with ETSI prior to 1981 had a long and stormy history. As far back as 1974, ETSI and South Dakota have been cussing and discussing the potential for an arrangement that would avoid a showdown over the Madison Formation. In 1977, the South Dakota Legislature passed a bill authorizing the grant of a water right for Oahe Reservoir water to ETSI that ETSI could have used merely as a backup for its Madison Aquifer source. That bill was vetoed and an attempt to override it failed in the State Senate by one vote.

It was not until May of 1981 when ETSI's South Dakota Counsel happened to run into me in the Capitol cafeteria one day that I mentioned an interest in avoiding what seemed to be inevitable litigation. The resulting conversation grew into more formal negotiations, and it was not until this process began that it became apparent that ETSI was willing to look to the Oahe Reservoir as a primary source of water instead of a backup and hold its Madison Formation water rights in reserve to be used only if Missouri River water were physically or legally available. In our negotiations we attempted to pursuade ETSI to give up its Madison Formation water rights, but it soon became apparent that no deal containing that condition could be struck.

Once ETSI's willingness to use Missouri River water as a primary source became apparent, the other main provisions of the contract to provide water to western South Dakota communities along the pipeline and money to the State's Water Facilities Construction Fund were hammered into place after long and arduous negotiations, a special session of the South Dakota Legislature, and longer and more arduous negotiations to actually draft the technical agreement. Once this agreement began to take shape and it appeared that our goals with respect to preserving the Madison Formation, providing water to western South Dakota communities, and obtaining money for water development were actually achievable, it became impossible for South Dakota to reject this virtual bird in the hand in favor of protracted and uncertain litigation that might possibly accomplish only one of our goals.

The Deal

Charts XIII, XIV, XV, XVI and XVII outline the basic agreement between the South Dakota Conservancy District, which is the contracting entity for the State of South Dakota, and ETSI. The basic $9 million payments which begin with construction of the coal slurry pipeline proper are indexed to the GNPD (gross national product deflator). Our calculations show that if the GNPD behaves over the next 50 years exactly as it did during the last 50 years, the indexed payments could total approximately $1.4 billion over the life of the contract.

Negotiating this contract and structuring the arrangement presented several unique and sticky legal problems. The first was the provision of the South Dakota State Constitution which prohibits the legislature from granting to any private concern any special priviledge, franchise, grant, or immunity whatsoever and prohibits the legislature from enacting any special legislation where the same purpose can be accomplished through a law of general applicability. We have preserved the legality of this transaction in this regard by enacting a statute of general applicability which allows the South Dakota Conservancy District to apply for and to obtain water rights for the purpose of transferring them for consideration to third persons for ultimate use in energy development both in and out of South Dakota. The general provisions of the agreement as presented here in Charts XIII through XVII were, in fact, presented to the legislature. In reality, however, the legislation made no specific mention of ETSI and the South Dakota Conservancy District could, in fact, have applied for and transferred the water rights to energy users other than ETSI. Nothing in the legislation mentioned ETSI, and nothing except our desire to prevent the legislation from being repealed in the January, 1982, Legislative Session required us as a matter of law to consumate the proposed arrangement with ETSI.

In addition, the application by the South Dakota Conservancy District for a water right passed through the same legal and administrative procedures as any other water right application in South Dakota. The approving body, the South Dakota Water Management Board, held over 40 hours of administrative hearings on this permit application alone. The application was submitted to the same rigerous tests and scrutiny that this Board administers to all other permit applications, and the Board, as a result, voted unanimously to approve the permit noting that ETSI as ultimate recipient of the permit had the present intent to appropriate the water, that the project was feasible, that unappropriated water was available, and that the proposed project was clearly in the public interest of the citizens of South Dakota.

The other major theoretical problem involved the basic ability of the State to convert its interest in water held for ultimate use by individual members of the public into other assets, namely cash. Our legal analysis is that, among other things, the arrangement described above whereby the Conservancy District obtains the water right and the consideration for its transfer is placed in a trust fund for water development administered by the Conservancy District preserves this transaction in this regard. Water rights, after all, are sold every day in many of the western states. If private individuals that can do this with property acquired from the State, an independent authority created by the State for water development purposes should be able to do the same.

In addition, a great deal of attention was paid to the legal rights of the states downstream from South Dakota. After analysis of the pertinent provisions of the Flood Control Act of 1944 discussed above and a review of some of the facts pointed out in the next section, it was determined that South Dakota's allocation of Missouri River water to a coal slurry pipeline originating in Wyoming stood on firm legal ground vis-a-vis downstream states.

What Are The Other States Complaining About?

On a substantive basis, the downstream states claim ETSI and, even more so, additional diversions of this type will impair their claimed rights to Missouri River water for navigation, municipal, domestic, irrigation, pollution assimilation, fish and wildlife, recreational, and esthetic purposes. On a legal basis, their complaints apparently center around their claim that ETSI is an inter-basin transfer and also around Section 6 of the Flood Control Act of 1944 which authorizes the Army Corps of Engineers to enter into contracts for surplus water for municipal and industrial purposes.

Chart XVIII compares the average ETSI withdrawal at the rate of 50,000 acre feet per year with the discharge of the Missouri River at the Oahe Dam near Pierre, South Dakota. As you will note, ETSI's withdrawal represents only 0.28% of the average annual 1981 discharge of the Oahe Dam. In contrast to this, most measuring devices have an inherent error of 5%. The result is that it would take more than 17 ETSI's at 50,000 acre feet per year each to create a withdrawal from the Oahe Reservoir large enough to be measured at

Pierre, South Dakota. Because of contributions to the Missouri River downstream from Pierre, the effect of 17 ETSI's still could not be measured with any certainty when the river passes through Sioux City, Iowa.

As a further comparison, it should be noted that each year at the end of the navigation season releases from the Gavins Point Dam, which is furthest downstream on the Missouri, are cut from approximately 32,000 cfs to about 15,000 cfs for the purpose of conserving water in storage and concurrently to maintain stream flows for municipal, domestic, and other uses including water quality downstream. Whether such large releases during the off season are necessary for downstream purposes is problematic. The Corps of Engineers, however, has determined that releases of this magnitude can be made without impairing other requirements and purposes of the reservoirs. This cut-back in flow lasts for approximately 4 months until the beginning of the next ensuing navigation season and represents a reduction in Missouri River flow of approximately 53%. We are unaware of any inability of the Missouri River to meet downstream desires other than navigation during this period when its flow above Sioux City is cut to 47% of navigation season releases. The Missouri River, after all, is a gaining stream and picks up, on an average, 33 million acre feet of water every year below Sioux City in addition to an average contribution of 21 million acre feet of water from the watershed above Sioux City.

Another interesting figure comes from a report written by the Missouri River Basin Commission, a joint federal-state entity governed by Federal agency representatives and representatives appointed by the governors of all 10 Missouri River Basin states, and published in December, 1978 at the request of the now nearly defunct Water Resources Council. That report entitled

Upper Missouri River Basin Water Availability Assessment for Coal Technology Requirements addressed the water necessary, and its availability, for probable energy development in the States of Wyoming, Montana and North Dakota. In its baseline assessment, the Missouri River Basin Commission projected that, by 1985, 150,706 acre feet of water per year would be necessary to meet coal development requirements in these States. 30,488 acre feet of this total would be used for coal slurry pipelines. By the year 2000, the Commission projected that 237,481 acre feet per year with 78,056 acre feet per year going to coal slurry pipelines would be necessary for energy development. These figures are interesting not because they represent relatively large amounts of water, but because the total amount projected for the year 2000 even if it were all diverted from the Oahe Reservoir could still not be accurately detected by a gauge in the stream below the Oahe Dam. The projected 2000 demand is less than one-half of the annual evaporation from the Oahe Reservoir and should certainly be no cause for alarm in light of the 53% reduction in stream flow that occurs every fall at the close of the navigation season.

With respect to the inter-basin transfer issue, the legal questions here are easily resolved. The United States Supreme Court has on three separate occasions declared a diversion's status as an inter-basin transfer to be irrelevant from a legal perspective. New Jersey v. New York, 283 U.S. 336 (1931); Connecticut v. Massachusetts, 282 U.S. 660 (1931); Wyoming v. Colorado, 259 U.S. 419 (1922). I am sure these cases will be examined in great detail during this conference, and I need not repeat that exercise here. I do, however, draw your attention to Justice Holmes' opinion in New Jersey. In that case the State of New York proposed the diversion of 600 million gallons of water a day from the Delaware River into the Hudson River basin. New Jersey's complaint against this proposed diversion resembles nothing more than a script for the cries currently being made by downstream states against South Dakota's proposed diversion for ETSI. It was in New Jersey that Oliver Wendell Holmes wrote his famous line, "A river is more than an amenity, it is a treasure." 283 U.S. @ 342. Shortly thereafter, Justice Holmes made it abundantly clear that the issue of an inter-basin transfer is truly irrelevant and serves only as a make-weight argument. Justice Holmes said, "the removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds. In fact, it has been allowed repeatedly and has been practiced by the States concerned." 283 U.S. @ 343. Justice Holmes then went on to allow a diversion from the Delaware River basin in the amount of 440 million gallons daily. According to the best information available to us, this amounts to 6% of the average flow of the Delaware River. As was discussed earlier, nothing approaching that high percentage of Missouri River flows is currently being contemplated for diversion to energy industry use.

In addition, it is a bit difficult to understand how the States of Nebraska and Missouri, for instance, can, in all honesty, complain about inter-basin transfers. Nebraska, while engaging in no inter-basin transfers itself, is downstream on the Platte River and is the direct or indirect beneficiary of at least 3 inter-basin transfers from the Colorado River Basin into the Platte River Basin. The largest of this amounts to 505,000 acre feet of water yearly in the Denver, Colorado area. If these inter-basin transfers were not being made it is difficult to predict how much worse the water disputes between Nebraska and its upstream neighbors on the Platte would be.

Missouri takes this process one step further and actually exports water out of the Missouri River Basin at the town of Springfield. This diversion consists of a water supply intake within the City of Springfield and within the Missouri River Basin and a wastewater outfall within the City of Springfield lying outside the Missouri River Basin. South Dakota acknowledges that Springfield's diversion of water out of the Missouri River Basin may be necessary in order to distribute water from one side of the City to the other. It [illegible] not appear to us, however, that Missouri's necessity is any less than South Dakota's need to use industrial water development to subsidize delivery of Missouri River water to western South Dakota towns where the radium concentrations exceed the EPA limits by a factor of 30. The inter-basin transfer at Springfield amounted to 16,800 acre feet in 1978, a diversion of the same order of magnitude as that proposed by ETSI. A similar inter-basin transfer of water is conducted by the City of Butte, Montana in its municipal water supply. All in all the Missouri Basin States Association has identified four inter-basin transfers importing water into the Missouri River and two inter-basin transfers exporting water from the Missouri River Basin. (Chart XIX) The net result is that the Missouri River Basin is a net gainer of approximately 644,000 acre feet of water yearly. It is difficult to understand how Missouri River Basin States can be complaining about inter-basin transfers when all of the basin states and particularly those riparian to and downstream from the Platte River, have been the beneficiaries of such actions for a long period of time.

Finally, with respect to the interbasin transfers, I submit that ETSI is not an inter-basin transfer in the traditional sense of that word. Water is not being used to develop resources located outside of the Missouri River Basin. It is Missouri River water that is used to develop a Missouri River Basin resource-Wyoming Coal. Water is consumed and the beneficial use is initiated within the Missouri River Basin near Gillette, Wyoming.

Logic dictates that there is little difference between this use of Missouri River water to develop in-basin coal and the use of water by an Omaha brewery which may ship its products into eastern Iowa or the actual export of raw water out of the basin to the extent of 54 million acre feet per year at the mouth of the river above St. Louis. With respect to this last figure, the additional water released from Gavins Point Dam during the navigation season during 1980 amounted to approximately 8,100,000 acre feet of additional water released for navigation purposes. Navigation tonnage during 1980 totaled 3,009,612 tons. The cargo carrying efficiency of this navigation water was, therefore, 0.37 tons per acre foot of additional water released. ETSI on the other hand will deliver in its first pipeline 37,500,000 tons of coal with only 20,000 acre feet of water. The carrying capacity of water to be used by ETSI is 1,875 tons per acre foot. The water use efficiency of ETSI's first coal slurry pipeline, will, therefore, be nearly 507,000% greater than that of the increased water released for navigation during the 1981 season. This comparison, it should be noted, includes only the increased flows released from the upper basin at Gavins Point Dam and does not include any of the 33 million acre feet of contributions occuring below that point.

Finally, with respect to the argument that Section 6 of the 1944 Flood Control Act requires water service contracts out of the mainstem reservoir to be executed by the Corps of Engineers, it can only be said that those who are making this claim ought to review their legislative history and the very nature of the Pick-Sloan program. Section 6 states:

> "That the Secretary of War is authorized to make contracts with States, municipalities, private concerns, or individuals at such prices and on such terms as he may deem reasonable for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War Department: Provided That no contracts for such water shall adversely affect then existing lawful uses for such water."

A reading of this Section begs two questions: What is surplus water? And is the authority granted the Army Corps of Engineers under Section 6 exclusive? With respect to the first question the Army Corps of Engineers have a regulation which states "The term surplus water means water trapped or stored in a reservoir project which is not utilized to fulfill an authorized project purpose." ER 1105-2-20 (28 Jan. 1982). If that is the Army's definition of surplus water, it is clear from the legislative history that the water to be used by ETSI is not surplus to any project purposes.

The Oahe Reservoir, which is the source of water for the ETSI project was originally authorized by the Flood Control Act of 1944. Section 9(a) of that Act authorized the construction of the Oahe Reservoir as described in Senate document No. 191, 78th Congress, 2nd Session (April 1944). At pages 115-116 of that document, the Oahe Reservoir is described as containing storage to irrigate an area of 750,000 acres along the James River in South Dakota. Page 117 of the document lists additional smaller pumping units which could also be served out of the Oahe Reservoir and other reservoirs in South Dakota. The dam, therefore, was authorized and constructed with an irrigation function for service to at least 750,000 acres of irrigation. At the present time, diversions to serve only approximately 190,000 acres of the full potential capacity have been subsequently authorized by Congress. This leaves a surplus reclamation capacity in the Oahe Reservoir capable of serving somewhere in the neighborhood of 560,000 acres. It is unlikely that this reclamation capacity nearly all of which is still carried as a function of the Pick-Sloan project will be used for irrigation until further specific diversions are funded by Congress. Under Section 9(c) of the Reclamation Project Act of 1939, the Secretary of Interior is authorized to make interim use of reclamation projects if he determines that such use will not interfer with the irrigation function of the project. It is clear in this case that where in excess of 500,000 acres of irrigation capacity awaits further Congressional action in order to be utilized, the amount allocated to ETSI will not present any interference with irrigation development in South Dakota over the next 40 to 50 years.

The bottom line is that ETSI's water is not surplus to the reclamation function of the Pick-Sloan Plan but is being utilized as an integral part of that function. In fact Section 9(c) of the 1944 Flood Control Act specifically requires the Secretary of the Interior to operate the reclamation portions of the Pick-Sloan development under Federal Reclamation Law, and the Reclamation Project Act of 1939 is a portion of the general body of Federal Reclamation Law.

In answering the first question in this matter it is easy to see that the second question is also answered. The Army Engineers' authority to contract surplus water is inapplicable in this case and, therefore, is not exclusive in its application.

Conclusion

In this paper I have presented a basic outline of the nature, history, and extent of South Dakota's involvement with ETSI Pipeline Project and its proposal to develop a coal slurry line from Wyoming to Arkansas and Louisiana. It is South Dakota's position that the actions taken were not only reasonable under the circumstances but were also perfectly legal and within the envisioned purposes of the Pick-Sloan program when it was originally authorized in 1944.

I do not rest, however, on our own analysis of the reasonableness of South Dakota's actions. The downstream states have received practically all of the benefits that they bargained for in the passage of the 1944 Flood Control Act. South Dakota and her upstream sisters on the other hand, have received practically none of those benefits. An Iowa economist funded by the Iowa General Assembly to analyze the impact on Iowa of Missouri River diversions, essentially concluded the same thing. It is apparent from his remarks included in the last two charts of this presentation that when South Dakota's action is subjected to rigorous analysis even her opponents must agree with what South Dakota did in establishing her relationship with ETSI. The Iowa report written by David Osterberg concludes with a final word on ETSI.

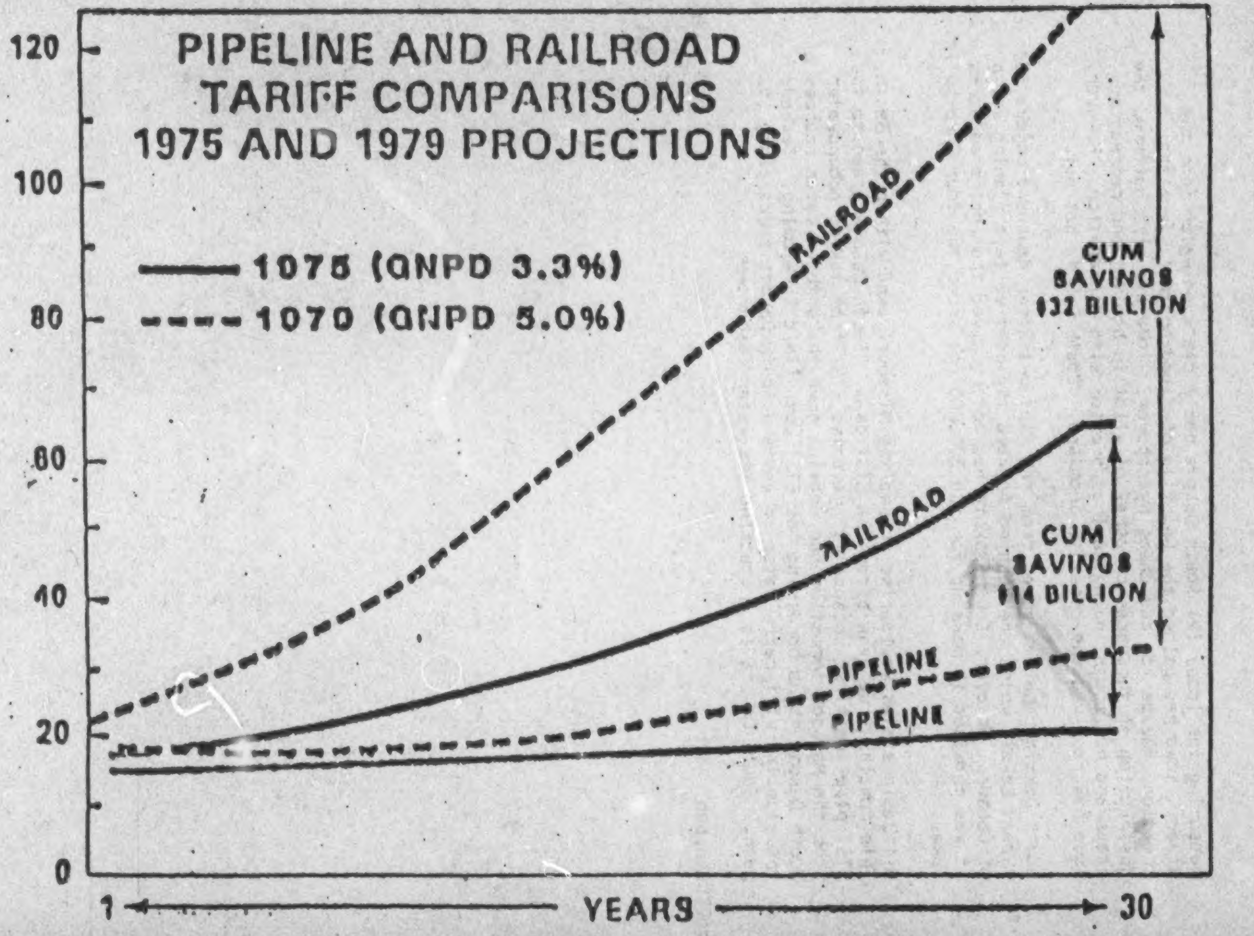
> A Final Word on ETSI
>
> The ETSI slurry pipeline, the subject of many recent newspaper articles, has come as a warning shot to Iowa. Coming in a low water year when navigation has been reduced, talk of decreasing the flow made citizens and policy-makers aware of all plans to make the Missouri into a smaller river.
>
> Governor Janklow of South Dakota has claimed that the new pipeline will remove water equal to one-tenth the annual evaporation on Lake Oahe and that downstream users should "quit being selfish" about the Missouri (UMC 1981, p. 8,9). There is merit on both counts: (1) If 50,000 fewer acres flowed past Sioux City in a year, river gauges would have trouble

measuring the loss; (2) South Dakota has a claim on water from the River. Iowa has gained the benefits of flood control, farmland creation, navigation and cheap hydropower. Iowa has also suffered the destruction of thousands of acres of wildlife habitat and recreation areas and has a continuing serious problem with degradation. However, Iowa has received the benefits promised. South Dakota has not.

South Dakota receives power from the Missouri River dams and enjoys four "Great Lakes" which are reputed to have the best walleye fishing south of Canada. However, South Dakota has not received the irrigated acres it was promised to make up for the 500,000 now under the four Corp-built lakes.

All Basin states would like to see the Missouri used within the Basin. This remains true even after the ETSI deal. South Dakota greed to the ETSI pipeline first because it prevented ETSI from taking groundwater from the Madison formation and drawing down the potable water sources of South Dakota towns bordering the ETSI pump field in Wyoming. Second, the pipeline will carry water to western South Dakota towns along its path. South Dakota is protecting its water resources.

c60702bn.pub



PIPELINE AND RAILROAD TARIFF COMPARISONS 1975 AND 1979 PROJECTIONS

MISSOURI RIVER BASIN

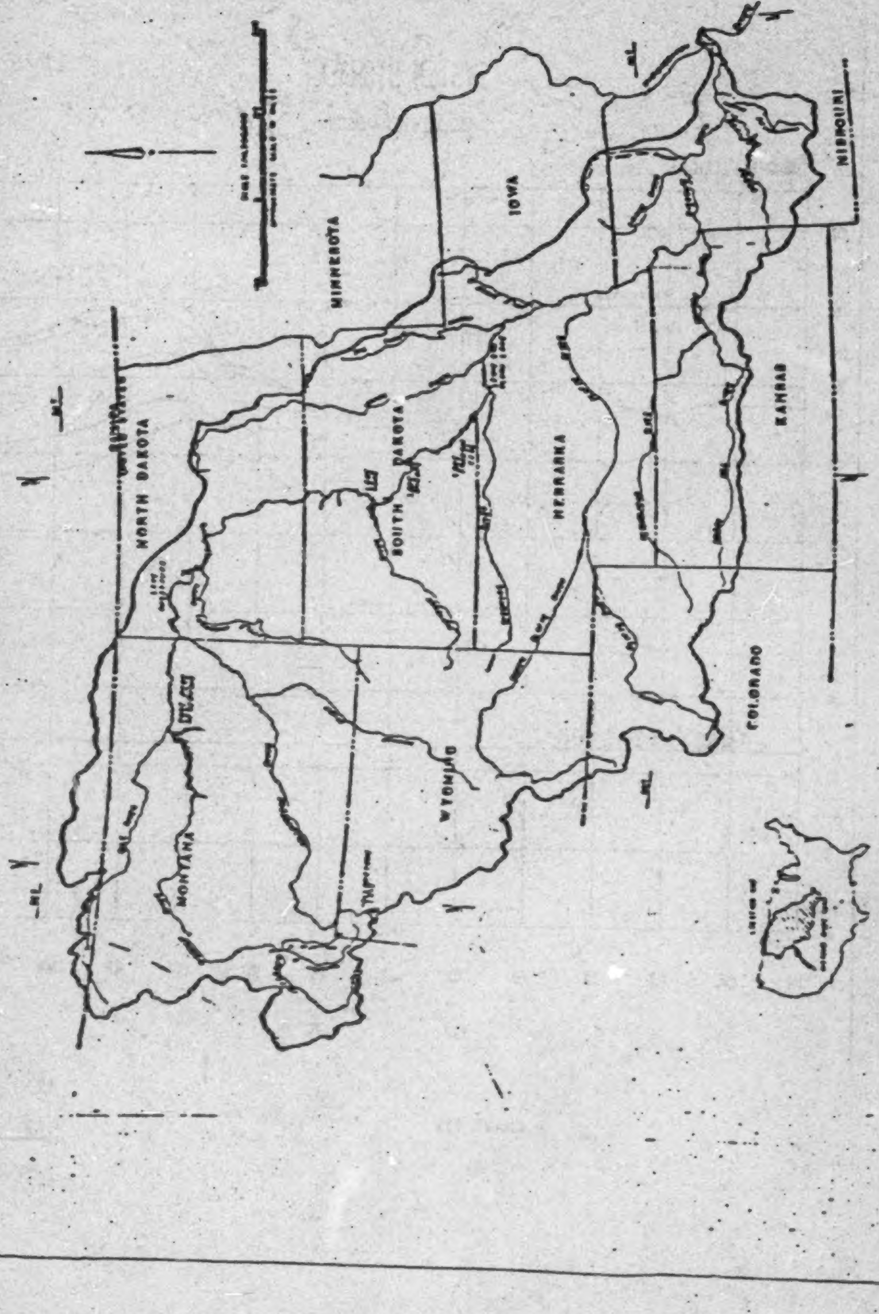

NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
IOWA
NEBRASKA
MISSOURI
KANSAS
COLORADO
WYOMING
MONTANA

CHART II

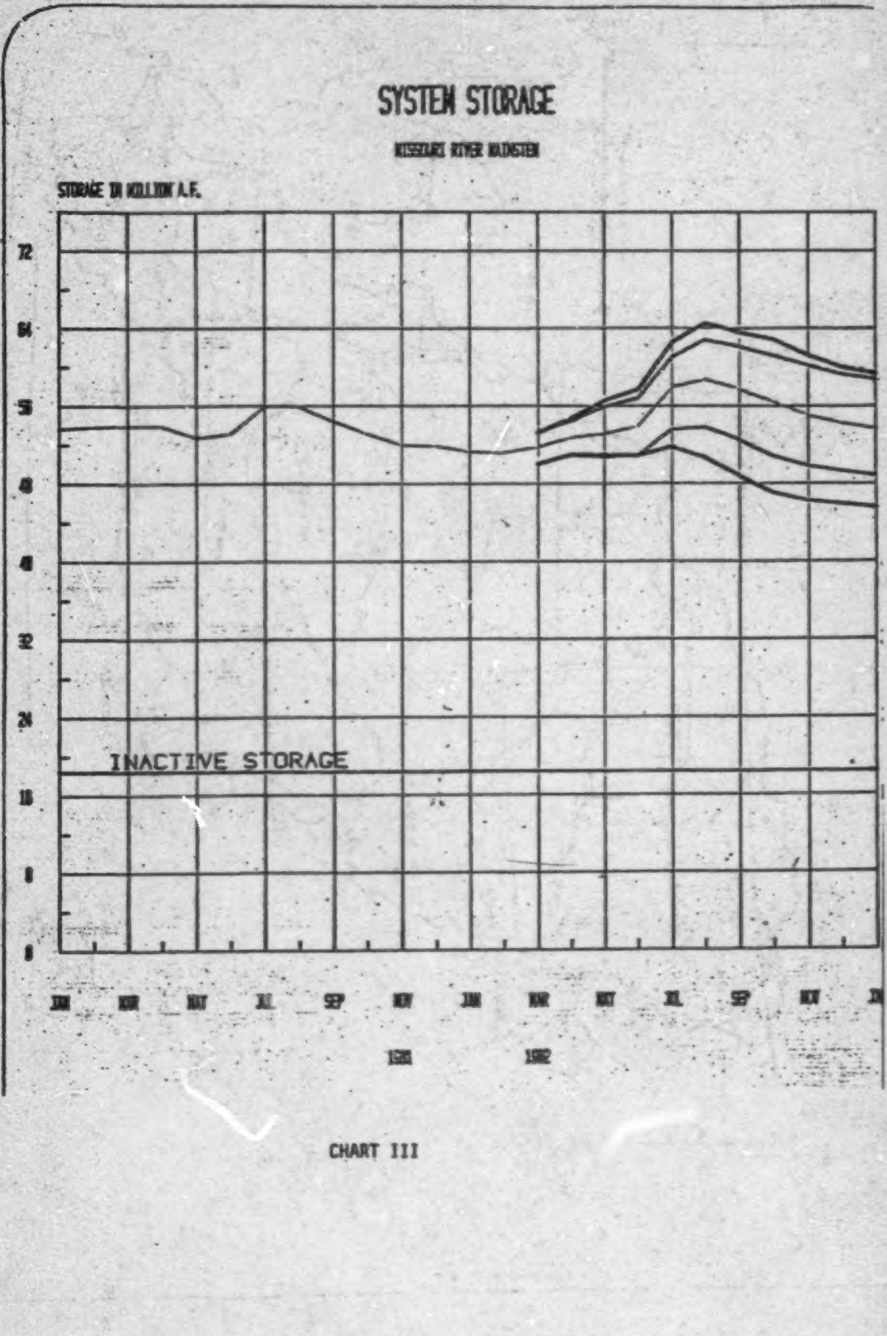
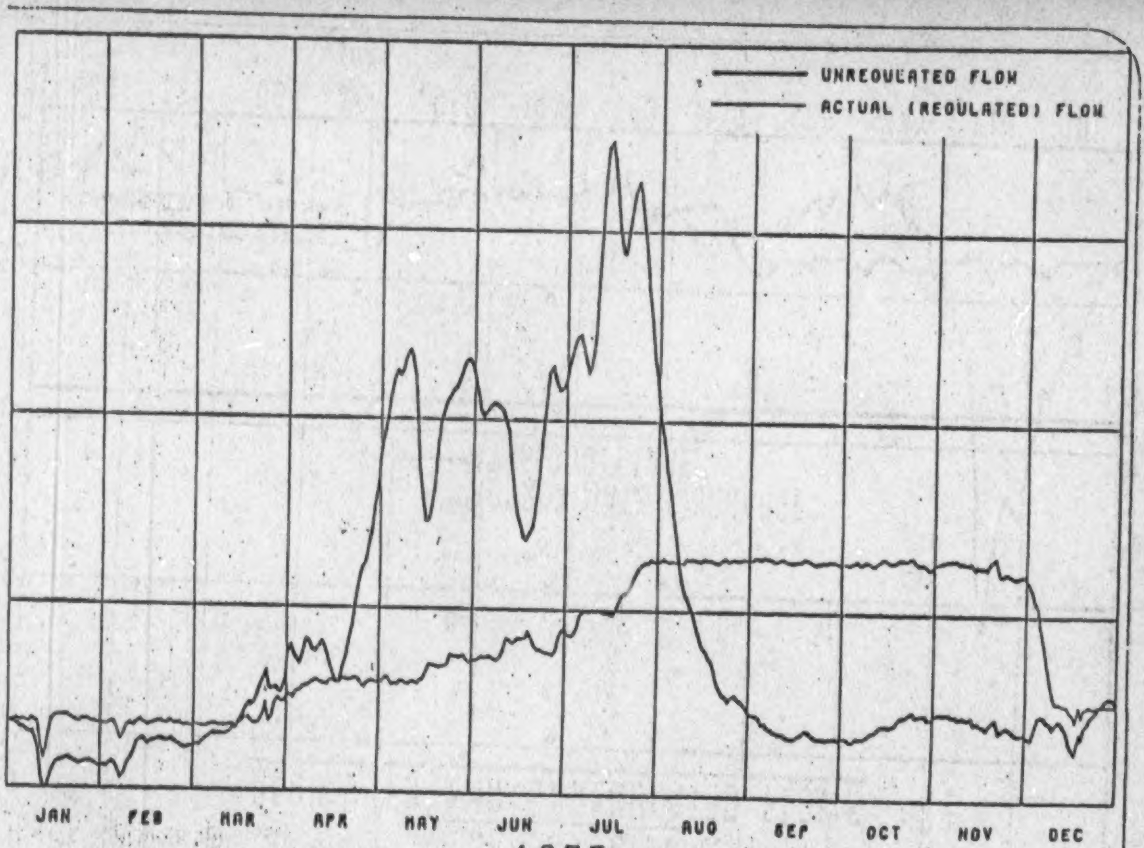
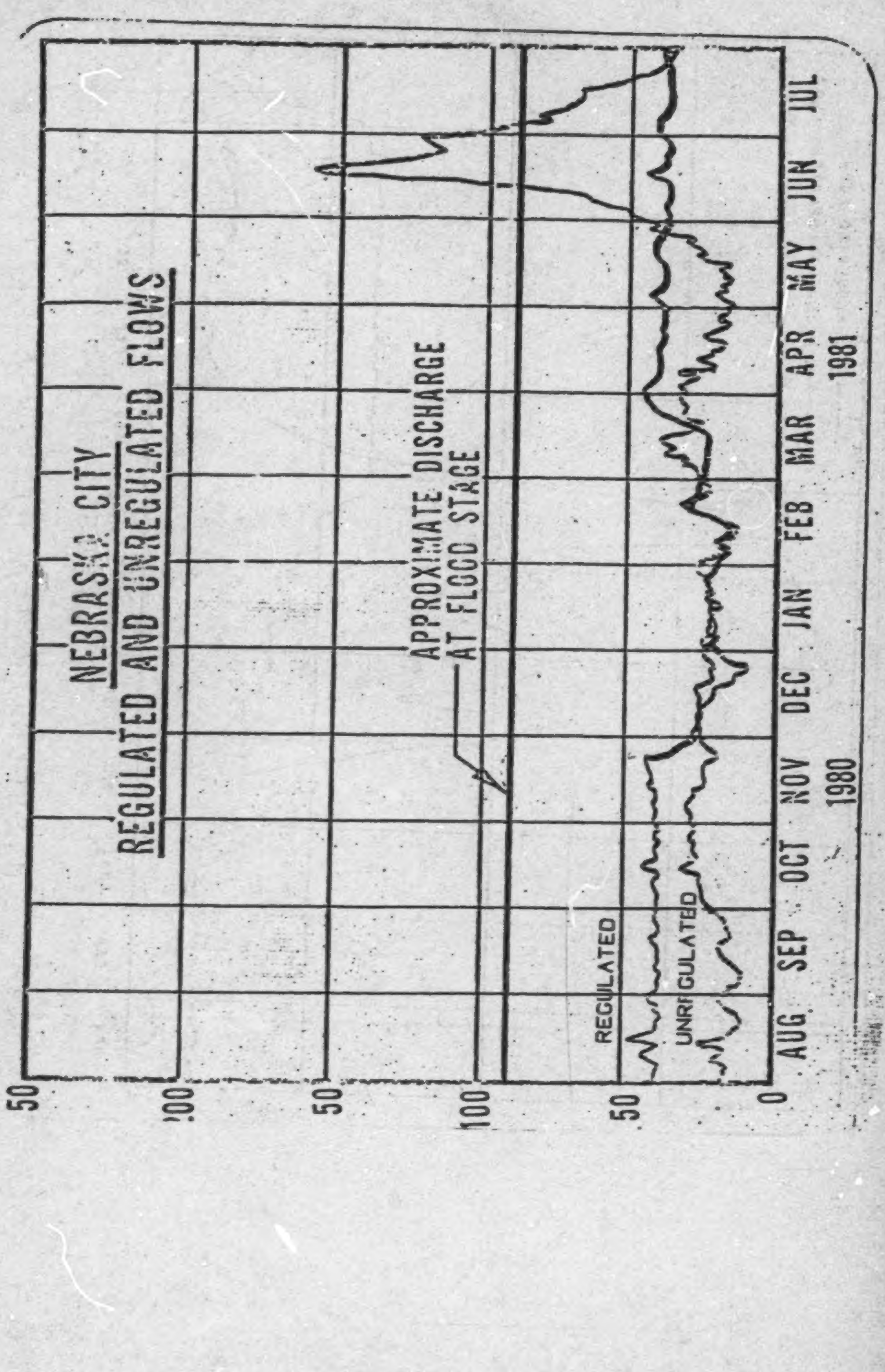

SYSTEM STORAGE
MISSOURI RIVER MAINSTEM
STORAGE IN MILLION A.F.
72
64
56
48
40
32
24
16
8
0
INACTIVE STORAGE
JAN
MAR
MAY
JUL
SEP
NOV
JAN
MAR
MAY
JUL
SEP
NOV
JAN
1981
1982

CHART III



1975

MISSOURI RIVER AT SIOUX CITY


NEBRASKA CITY
REGULATED AND UNREGULATED FLOWS
APPROXIMATE DISCHARGE AT FLOOD STAGE
REGULATED
UNREGULATED
0
50
100
50
00
50
AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
1980
1981

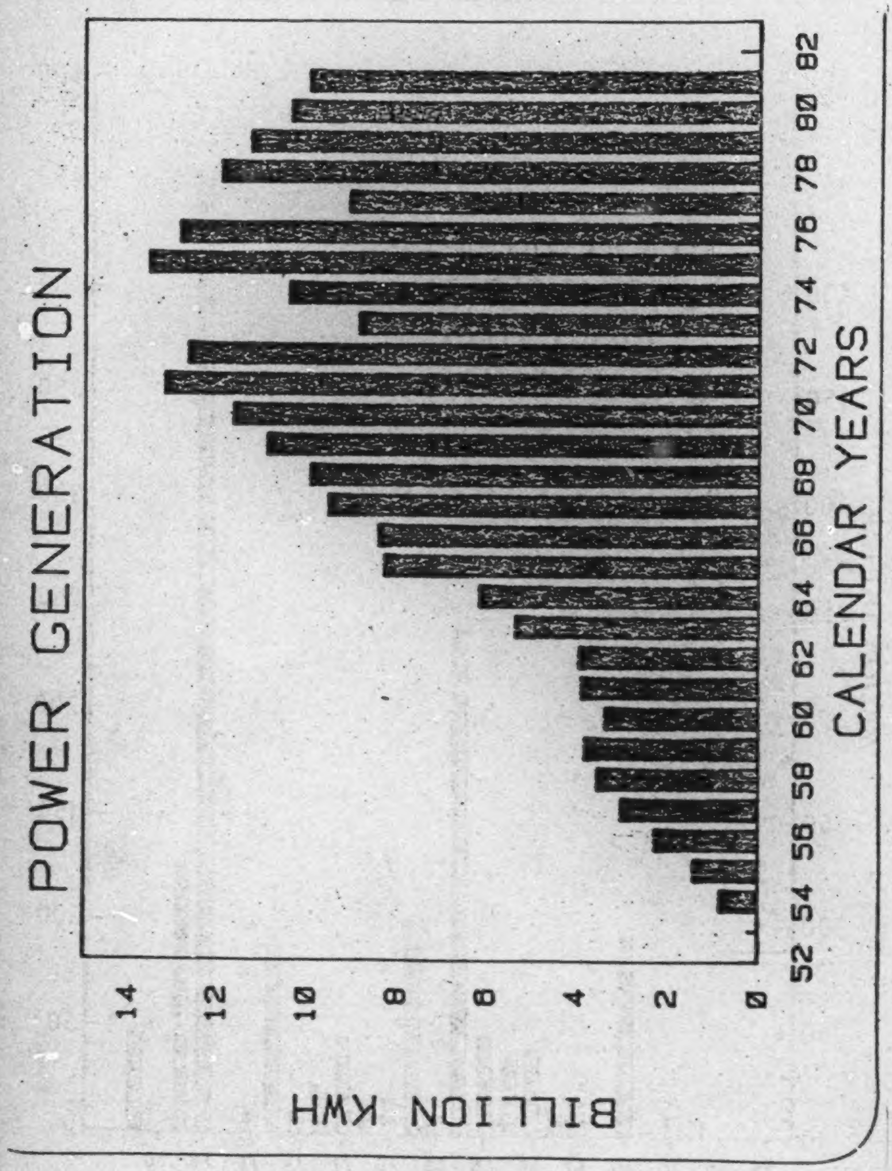

POWER GENERATION
BILLION KWH
14
12
10
8
8
4
2
0
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
CALENDAR YEARS

CHART VI

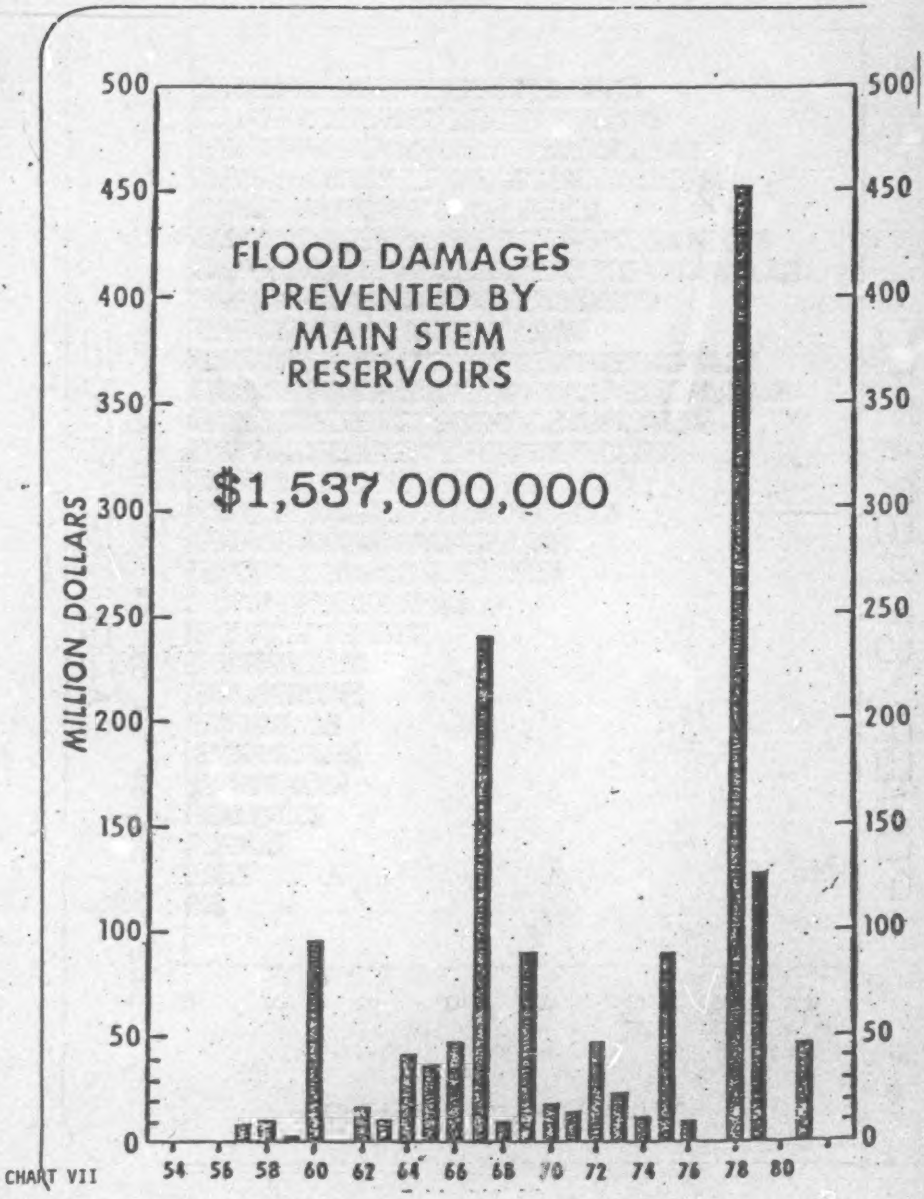
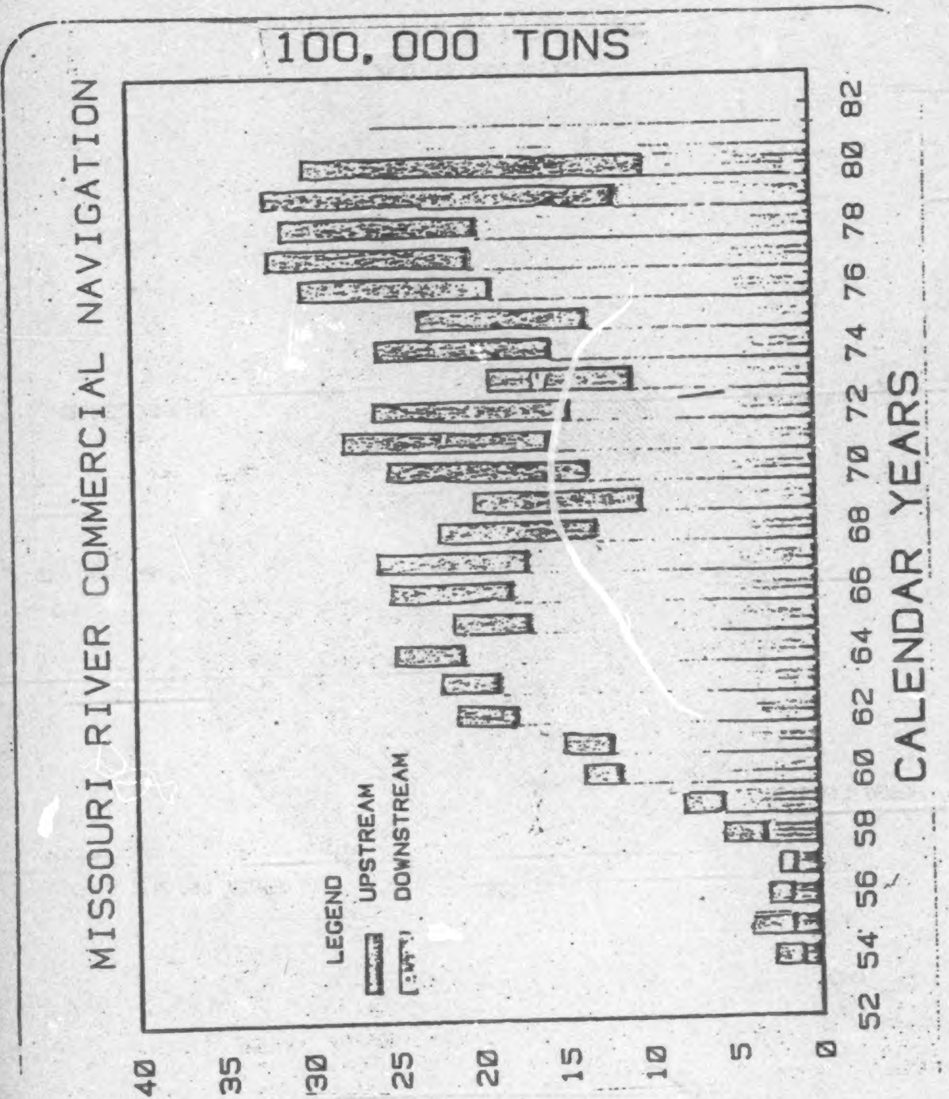
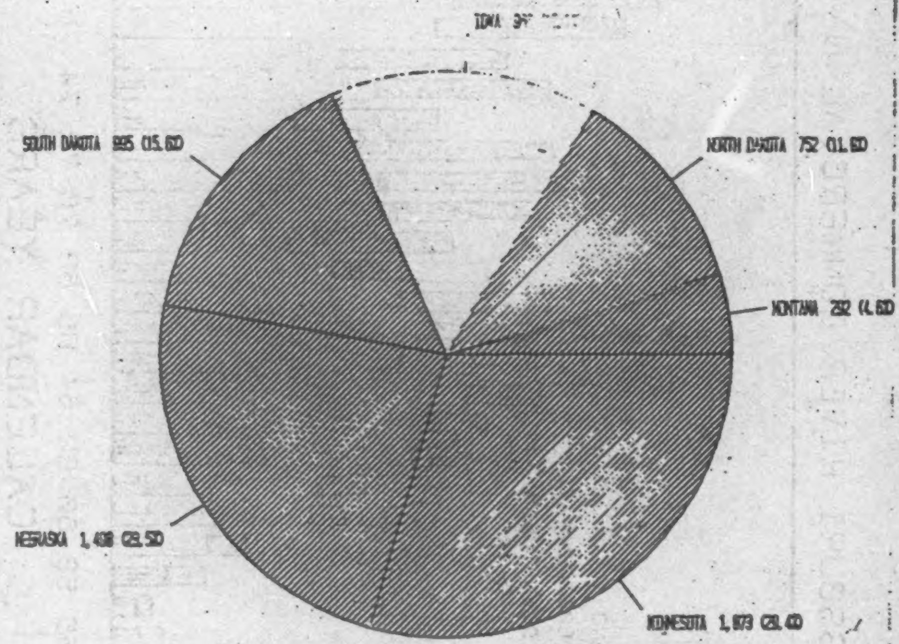

FLOOD DAMAGES PREVENTED BY MAIN STEM RESERVOIRS
$1,537,000,000
MILLION DOLLARS
500
450
400
350
300
250
200
150
100
50
0
54
56
58
60
62
64
66
68
70
72
74
76
78
80

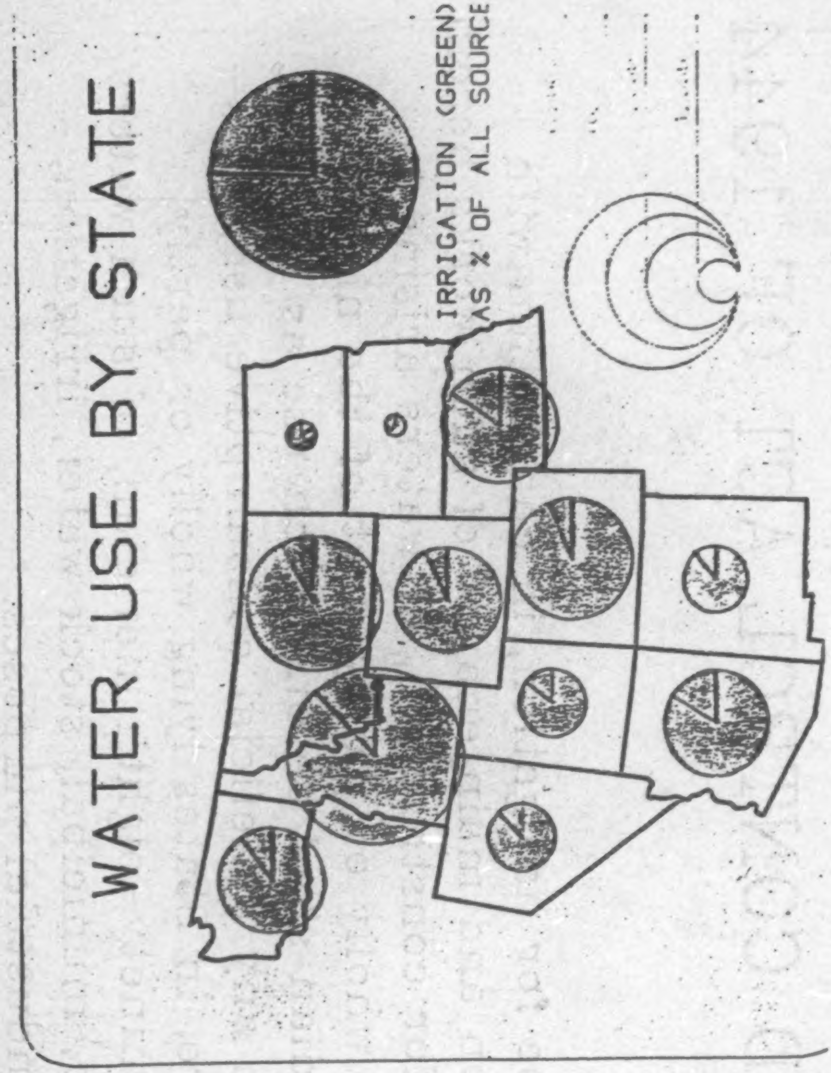
CHART VII


MISSOURI RIVER COMMERCIAL NAVIGATION
100,000 TONS
LEGEND
UPSTREAM
DOWNSTREAM
40
35
30
25
20
15
10
5
0
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
CALENDAR YEARS

POWER SALES IN MILLION KWH

FROM SOUTH DAKOTA DAMS - FY 1980



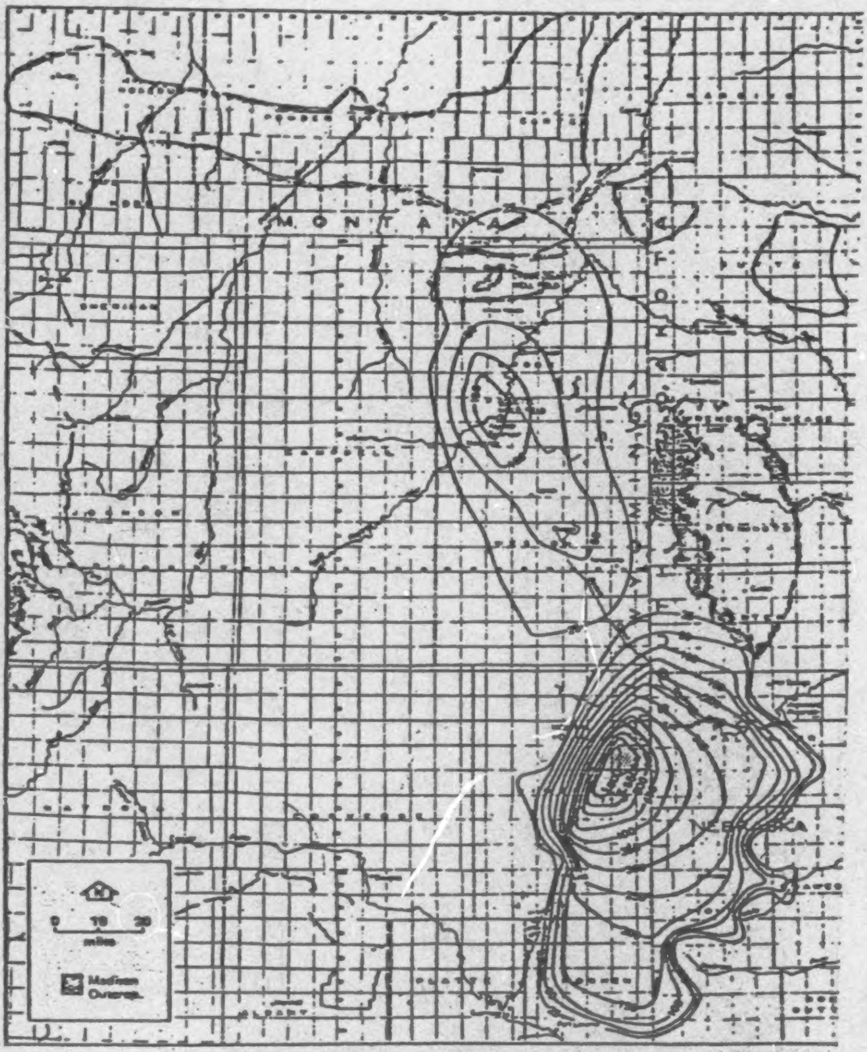

WATER USE BY STATE
IRRIGATION (GREEN)
AS % OF ALL SOURCE

FLOOD CONTROL ACT OF 1944

Sec. 1

(b) The use for navigation, in connection with the operation and maintenance of such works herein authorized for construction, of waters arising in States lying wholly or partly west of the ninety-eighth meridian shall be only such use as does not conflict with any beneficial consumptive use, present or future, in States lying wholly or partly west of the ninety-eighth meridian, of such waters for domestic, municipal, stock water, irrigation, mining, or industrial purposes.

2-8-82


MONTANA
WYOMING
NEBRASKA
0 10 20
miles
Madison Outcrop

Map 5-2. DRAWDOWNS (in feet) IN THE MADISON AQUIFER POTENTIOMET SURFACE AFTER 50 YEARS (1985-2035) OF PUMPING BY EXISTIN AND PLANNED MADISON USERS, WITH ETSI PUMPING FROM NIOBRARA COUNTY WELL FIELD ONLY (PLAN 1)

CHART XII

WHAT ETSI WILL DO FOR SOUTH DAKOTA

(MONETARY CONSIDERATION)

1. ETSI WILL PAY $2,000,000 WHEN WATER PERMIT IS GRANTED.

2. ETSI WILL PAY $2,000,000 *MORE* WHEN WATER PERMIT HAS RECEIVED FINAL GOVERNMENTAL ACTION.

3. ETSI WILL PAY $3,000,000 ON EACH ANNUAL ANNIVERSARY OF WATER PERMIT NOT TO EXCEED TEN YEARS AND ONLY UNTIL CONSTRUCTION STARTS ANY PLACE OF A COAL SLURRY PIPELINE.

CONTINUED ON NEXT PAGE

CHART XIII

WHAT ETSI WILL DO FOR SOUTH DAKOTA

(MONETARY CONSIDERATION)

4. ETSI WILL PAY $9,000,000 PER YEAR *(INDEXED UPWARD)* WHEN CONSTRUCTION STARTS AND FOR LIFE OF PIPELINE.

5. ETSI WILL PAY $9,000,000 PER YEAR FOR FIVE YEARS IF THERE IS ANY COAL SLURRY PIPELINE BUILT AND THEY DO NOT USE OAHE WATER -- THIS WILL TOTAL $45,000,000 EVEN THOUGH OAHE WATER AND MADISON WATER ARE NOT USED.

6. ETSI WILL PAY $1,500,000 TO SOLVE WESTERN WATER QUALITY NEEDS IF OAHE SYSTEM IS NOT BUILT BY JULY 1, 1984.

Xerox Corporation, Rochester, N.Y. Printed in U.S.A.

WHAT ETSI WILL DO FOR SOUTH DAKOTA

(NON-FISCAL)

1. ETSI WILL USE OAHE AS THE PRIMARY SOURCE AND WILL NOT USE MADISON WATER AS LONG AS OAHE WATER IS AVAILABLE.

2. ETSI WILL PROVIDE FROM 4,300 AF/YR TO 6,667 AF/YR OF FREE WATER ALONG THE PIPELINE DEPENDING ON FINANCING ARRANGEMENTS.

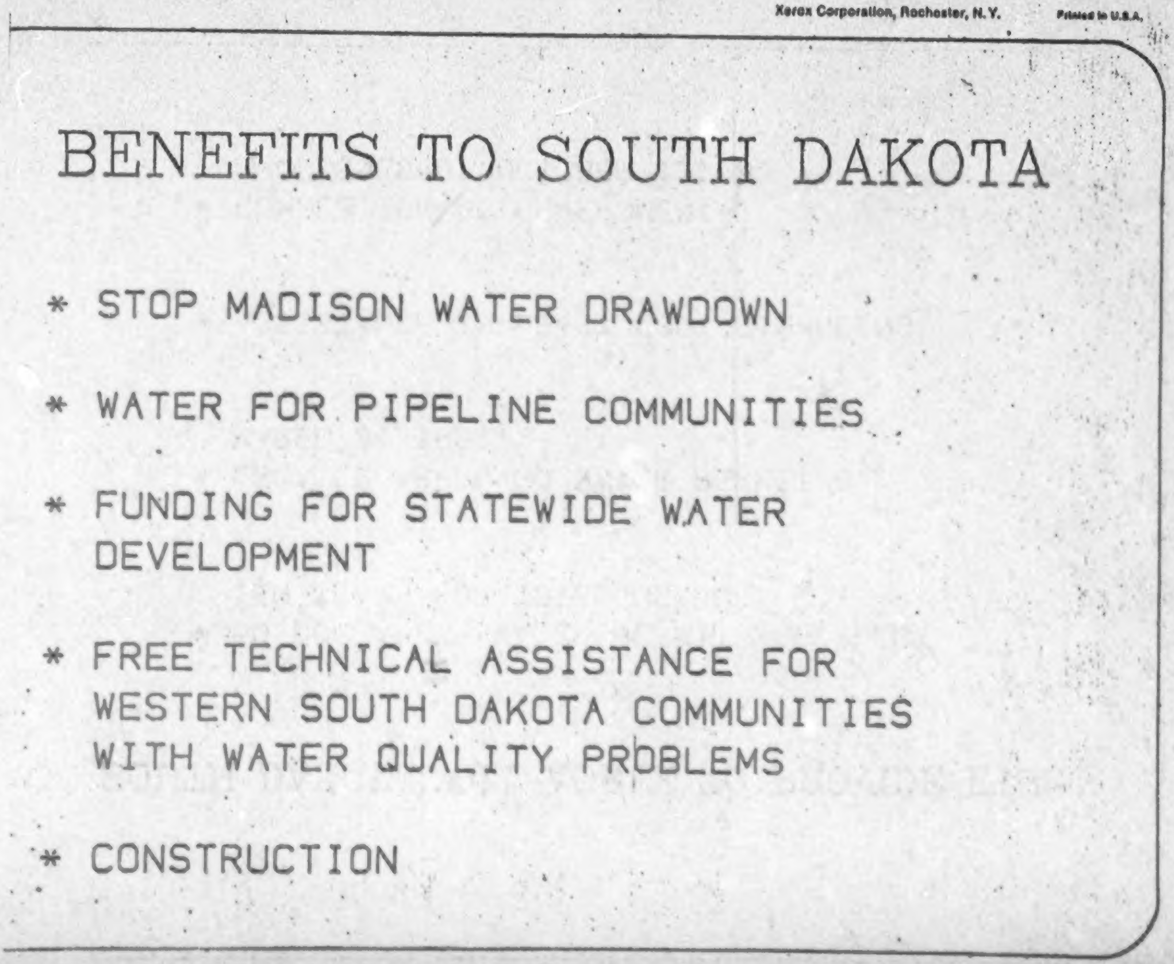
3. ETSI WILL BUILD AND PAY FOR THE SYSTEM AND ASSUME COST RISKS.

4. ETSI WILL PROVIDE ENGINEERING ASSISTANCE TO SOME WEST RIVER COMMUNITIES WHO HAVE BAD WATER QUALITY.

SOUTH DAKOTA WILL AGREE TO PROVIDE ETSI:

- 50,000 AF/YR WATER PERMIT AND ALLOW TEN YEARS FOR TOTAL USAGE
- LEGALLY APPROVED WATER PERMIT BY MARCH 31, 1982
- ASSISTANCE IN LEAST COST FINANCING
- COMPLETION OF GOVERNMENTAL PROCESSES BY OCTOBER 1, 1982

Xerox Corporation, Rochester, N.Y. Printed in U.S.A.



BENEFITS TO SOUTH DAKOTA

* STOP MADISON WATER DRAWDOWN

* WATER FOR PIPELINE COMMUNITIES

* FUNDING FOR STATEWIDE WATER DEVELOPMENT

* FREE TECHNICAL ASSISTANCE FOR WESTERN SOUTH DAKOTA COMMUNITIES WITH WATER QUALITY PROBLEMS

* CONSTRUCTION

1981

MONTH	AVERAGE DISCHARGE* (CFS)	ETSI WITHDRAWAL (CFS)	ETSI WITHDRAWAL % OF AV. DISCHARGE	COMPARISON DISCHARGES 2% (CFS)	COMPARISON DISCHARGES 5% (CFS)
JAN.	18,900	69.0	.37	378	945
FEB.	20,500	69.0	.34	410	1025
MAR.	23,900	69.0	.29	478	1195
APR.	35,500	69.0	.19	710	1775
MAY	30,600	69.0	.23	612	1530
JUNE	25,600	69.0	.27	512	1280
JULY	29,500	69.0	.23	590	1475
AUG.	31,300	69.0	.22	626	1565
SEPT.	25,235	69.0	.27	508	1270
OCT.	20,000	69.0	.35	400	1000
NOV.	15,300	69.0	.45	306	765
DEC.	17,300	69.0	.40	346	865
ANNUAL	24,500	69.0	.28	490	1225

* MISSOURI RIVER AT OAHE PUMPING PLANT-FROM U.S. ARMY CORPS OF ENGINEERS

CHART XVIII

MISSOURI RIVER BASIN
WATER IMPORTS AND EXPORTS

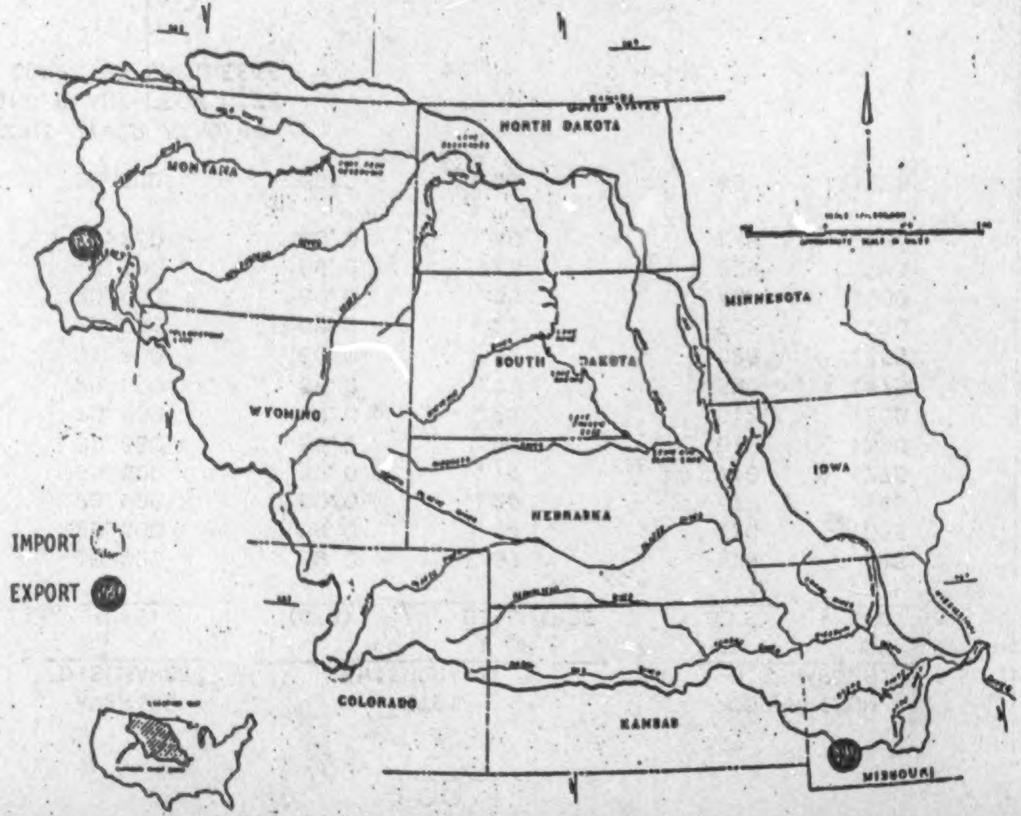

NORTH DAKOTA
MONTANA
MINNESOTA
SOUTH DAKOTA
WYOMING
IOWA
NEBRASKA
COLORADO
KANSAS
MISSOURI
IMPORT
EXPORT

CHART XIX

THE COST TO IOWA OF DIVERTING WATER FROM THE MISSOURI RIVER

David Osterberg

Project Commissioned by

THE LEGISLATIVE EXTENDED ASSISTANCE GROUP

Funded by

The Iowa General Assembly
and
The Ford Foundation Program in Policy Analysis
for State Environmental Management
Grant No. 785-0144A
and
The Northwest Area Foundation
Grant No. 515851
to
The Institute of Urban and Regional Research
The University of Iowa

Report Published by

The Institute of Urban and Regional Research
The University of Iowa
Iowa City, Iowa 52242

January 1982

David Osterberg is an Assistant Professor in the Department of Economics and Business at Cornell College, Mt. Vernon, Iowa.

CHART XX

A Final Word on ETSI

The ETSI slurry pipeline, the subject of many recent newspaper articles, has come as a warning shot to Iowa. Coming in a low water year when navigation has been reduced, talk of decreasing the flow made citizens and policy makers aware of all plans to make the Missouri into a smaller river.

Governor Janklow of South Dakota has claimed that the new pipeline will remove water equal to one-tenth the annual evaporation on Lake Oahe and that downstream users should "quit being selfish" about the Missouri (UMC 1981, pp. 8, 9). There is merit on both counts: (1) if 50,000 fewer acres flowed past Sioux City in a year, river gauges would have trouble measuring the loss; (2) South Dakota has a claim on water from the River. Iowa has gained the benefits of flood control, farmland creation, navigation and cheap hydropower. Iowa has also suffered the destruction of thousands of acres of wildlife habitat and recreation areas and has a continuing serious problem with degradation. However, Iowa has received the benefits promised. South Dakota has not.

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All Basin states would like to see the Missouri used within the Basin. This remains true even after the ETSI deal. South Dakota agreed to the ETSI pipeline first because it prevented ETSI from taking groundwater from the Madison formation and drawing down the potable water sources of South Dakota towns bordering the ETSI pump field in Wyoming. Second, the pipeline will carry water to western South Dakota towns along its path. South Dakota is protecting its water resources.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

JUN 24 1982

Memorandum

To: Legislative Counsel

From: Associate Solicitor, Energy and Resources

Subject: Water Rights Provision of S. 1844, a Bill "To Facilitate the National Distribution and Utilization of Coal"

You have requested that I supplement my May 20, 1982 memorandum regarding the water rights provision of S. 1844 that was forwarded to Senator McClure by letter dated May 27, 1982, from Assistant Secretary Carruthers. I stated on May 20 that it was my opinion that —

1. Section 6 of S. 1844 requires that the acquisition and use of any water rights by the United States, its agents, permittees, licensees, transferees, or any interstate coal pipeline distribution system for any use authorized by S.1844 be in full compliance with all applicable provisions of state substantive and procedural water law;
2. the U.S. and non-federal entities may not claim reserved rights under this Bill;
3. no water rights may be exercised under the authority of the Commerce Clause of the U.S. Constitution in derrogation or contravention of state water law; and
4. the use of eminent domain authority to acquire water rights for any use authorized by this legislation is prohibited.

I reiterate those conclusions. In addition, the Senate Committee on Energy and Natural Resources held hearings on this matter on June 8, 1982, at which time the three noted authorities on water law who testified stated the same conclusions regarding the water law provision of S.1844 as I had earlier reached. These authorities, in their prepared statements, provided the Committee with full legal support for their interpretation of the legislation with which I fully agree.

Professor Frank J. Trelease of McGeorge School of Law, who is often referred to as the "Dean of Western Water Lawyers," stated:

> this Bill will protect state law and will insure that slurry pipelines cannot override state law and state water rights on the basis of any claimed powers under the United States Constitution. . . .
>
> Section 6(b) of S.1844 is imperative, [it] says the states may impose terms and conditions on coal pipeline water rights notwithstanding the fact that the water is to move across a state line. [It] will "constitutionalize" these laws and allow states to control the use of all their waters.
>
> The Supreme Court has very recently said that Congress may do exactly this, citing New England Power Co. v. N. Hampshire, U.S. ____, 102 S. Ct. 1096, 17 L. Ed. 2d 188 (1982). . . . Section 6(b) is exactly the sort of authorizing legislation the Court approved. . . . I understand it has been argued that if an interstate coal slurry pipeline with a state water right were given federal powers, then it could claim it would be an interference with commerce to curtail its withdrawals to protect pre-existing water uses. That's nonsense.

Edward W. Clyde, Esq. of Clyde and Pratt, Salt Lake City, who has specialized in the practice of western water law for nearly 40 years stated:

> If the language which is proposed in S.1844 is adopted, I see no danger that the courts will hold that it was the intent of Congress to interfere at all with the state appropriation systems. The language clearly directs that water be appropriated for these projects under state law;. . . the courts will uphold this mandate. See, California v. United States, 438 U.S. 645 (1978); . . . the Act, if adopted, ought to give western states considerable comfort, because it contains an explicit statement by Congress that water for coal slurry pipelines is

> to be obtained under state substantive and procedural law;. . . it is a congressional declaration that the right of the state to control the appropriation and use of the water is not to be interfered with, even though coal and water will move in interstate commerce. I think the cases make it clear that Congress can withhold the full exercise of its commerce powers and the courts will uphold the statutory mandates.

Mr. Gary Widman, Esq., of Fulbright and Jaworski, and former professor of water law at Hastings College of the Law and at the University of Denver, stated,

> the Congress can write legislation limiting the water used in slurry pipelines to that acquired and owned under state law, and prevent the creation or implication of new federal interests in water. . . . Recent Supreme Court decisions make it clear that . . . Congress can defer to state water law [California v. U.S., supra; Imperial Irrigation District v. Yellen, 447 U.S. 352 (1980)] and the Commerce clause will uphold those articulated Congressional policies. [Lewis v. B. T. Investment Managers, Inc., 447 U.S. 27 (1980); Western and Southern Life Insurance Co. v. State Board of Equalization, 451 U.S.648 (1981).]

While several Congressmen and Senators opposed to the legislation stated contrary views, the water law experts were of the unanimous opinion that, while certain words could be changed in Section 6 of S.1844, the Bill as drafted would adequately protect state granted water rights, preserve state water law, and be upheld by the Courts. I agree.

Finally, the Attorney General of the United States announced on June 17, 1982, an opinion on Federal "Non-Reserved" Water Rights written by the Office of Legal Counsel, Department of Justice, which upheld this Department's interpretation that,

> in the absence of evidence of specific congressional intent to preempt state water laws, the presumption is that federal agencies can acquire water rights only in accordance with state law. (A.G. Opinion, p. 5)

The Attorney General concluded at page 79 of his opinion that

> the federal constitutional authority to preempt state water law must be clearly and specifically exercised by Congress, either expressly or by necessary implication. Otherwise, the presumption is that the western states retain control over the allocation of unappropriated water within their borders.

It is arguable under the Attorney General's reasoning that silence alone by Congress on the issue of acquisition of water rights for projects authorized under S.1844 would require compliance with all applicable state substantive and procedural water laws. However, section 6, clearly and explicitly rebuts any presumption that could possibly be made that state water law is to be preempted. The letter and intent of S.1844 is that state water law must be fully and completely complied with in acquiring water rights for projects authorized under S.1844. The Attorney General's opinion is binding on all federal agencies and unequivocally compliance with all applicable state substantive and procedural water laws. However, section 6, clearly and explicitly rebuts any presumption that could possibly be made that state water law is to be preempted. The letter and intent of S.1844 is that state water law must be fully and completely complied with in acquiring water rights for projects authorized under S. 1844. The Attorney General's opinion is binding on all federal agencies and unequivocally precludes the assertion of water rights by federal agencies, their permittees, licensees, etc., under S.1844 as drafted in contravention of state water law.

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OF COUNSEL
FRANK J. ALLEN
ROLAND R. WRIGHT

June 11, 1982

Honorable Malcolm Wallop
Committee on Energy and Natural Resources
United States Senate
Washington, D. C. 20510

Re: Proposed Amendments to S.1844

Dear Senator Wallop:

This letter discusses the modifications I would suggest to those portions of the printed amendments you are proposing to S.1844 in the areas of conditioning federal eminent domain upon (a) acquisition of state water rights and (b) limitations on use of federal reserved water rights. Before I go into this discussion, let me say that I appreciated the courtesy of being able to testify on the subject. Your understanding of the issues was impressive.

I can see no need to pursue extensive revisions. The language in the bill will accomplish the goal of protecting state water administration and prior water rights. I have seen Frank Trelease's suggested changes and concur with the few changes he is suggesting to subsections (a), (b) and (c) of Section 6. I am enclosing a copy of those, even though you may have received a separate copy from Dean Trelease.

My remaining concerns are (a) with the language ultimately used in conditioning the use of eminent domain powers on the holding of a state water permit; and (b) with the proposal which would prohibit the use of any federal reserved water rights for slurry lines. I offer the following thoughts on these two matters:

State Water Rights as a Precondition

On page 4, line 4 of Section 4(a), the term "appropriate state permits and authorizations" is used. The use of the word "and" suggests that both a permit and something else (not defined) are needed. I would suggest changing the word "and" to "or". This language also may imply the need for a perfected water right as a precondition to use of eminent domain powers under the bill.

If the language were so construed, it could create a "Catch 22" situation, because in most states a water right can only be fully perfected by the *completion* of the construction of works and the application of the water to the intended beneficial use. Thus, the power of eminent domain may be needed to perfect the right.

As a general rule, those seeking to use the right of eminent domain need it so that they can proceed with the needed construction of works. The subsequent actual use of water completes the perfection of the water right. The overwhelming majority of western states statutorily follows this approach. Clark, *Waters and Water Rights*, Vol. 6 pp. 518, footnote 33 (1972). It would be inadvisable to pursue a different approach in S.1844. In your own state of Wyoming it is both statutory and constitutional. Wyo. Const. Art. I, Sec. 32, U.S. Sec. 1-26-401 (1977).

I understand that the concern here is with the contention that a grant of eminent domain powers to a coal slurry pipeline could somehow be used as leverage to gain a state water right. In my estimation, such a strategy by a coal pipeline would be counter-productive. State water officials would simply not yield to such tactics. On the other hand, I agree that before someone should be permitted to exercise the powers of eminent domain he should have initiated a water right for his coal slurry line. If the water right which is going to be used for the slurry line is going to be obtained under a new state application to appropriate, the only thing that the sponsor of the project could do, as a practical matter, is to file his application and push for its approval. The state water administrative agency could approve the application and grant the permit without the construction of any works, but the water right could not be perfected until the facilities have been constructed and the water has been put to beneficial use. If the necessary rights of way cannot be acquired, the right to condemn would have to be invoked *at this point*.

Once the right of way has been obtained, construction can proceed, the water can be put to beneficial use and then the water right can be certificated or adjudicated and becomes a fully perfected right. See *Robinson v. Schoenfelt*, 62 Ut. 233, 238 P. 1041 (1923). In that case, the court expressly said that the mere filing of an application is not an appropriation. It does, if approved, give the applicant the right to proceed to complete the appropriation and if it is completed, said the court, the priority date will relate back to the date of filing. The mere filing of the application gives the applicant standing in court to defend his water right--for the application creates an "inchoate right" which he can defend.

In 1930 the Utah Supreme Court said in Little Cottonwood Water Co. v. Kimball, 76 Ut. 243, 289 P. 116, that the approval of an application is only a preliminary step. It merely clothes the applicant with authority to proceed and perfect, if he can, his proposed appropriation. To do this he must complete his works and apply the water to the intended beneficial use. To the same effect see Duchesne County v. Humphries, 106 Ut. 332, 148 P.2d 338 (1944).

Tanner v. Provo Bench Canal, 40 Ut. 105, 121 P. 584 (1911), was a suit brought to condemn the right to enlarge an existing canal to accommodate the plaintiff's water. A Utah statute permitted the use of eminent domain for this purpose. The canal company tried to stop the condemnation, because the only thing the plaintiff had was an approved application, which, as noted above, is significantly less than a perfected water right. The court held that it was not necessary that the plaintiff show that he had actually appropriated the water in order for him to maintain the condemnation action. It is sufficient, said the court, that he has applied for the water and the application has been approved.

We also need to perhaps keep in mind in chosing the language that Colorado, for example, does not have a normal permit system. Water rights are initiated there through the obtaining of a conditional decree directly from the court. Also, the water right which the coal slurry line may intend to use may already be one that is fully perfected under an existing state permit or court decree for irrigation or some other use. In most states a change application would be required so that the water could be changed from irrigation to coal slurry (industrial) use. Also the proposed water may be available only under a contract, with the water right itself (the application, the permit, the diligence claim or the decree) held by another. This would be true, for example, as to water secured from most Bureau of Reclamation projects. The Bureau would have obtained its water right under a permit from the state and then the user would get his water under a contract, so that he would hold a contract, rather than a permit. We then have situations where the project may have been built without a state permit. Generally this will be true of projects constructed by the Corps of Engineers and it is true in isolated cases, like Glen Canyon Dam, for example, in projects built by the Bureau. The practice of the Corps is to require persons seeking to use the water to secure a permit from the state and then a contract to use Corps facilities. On the Kaiparowits Project here in Utah the sponsors wanted water from Lake Powell, and since the Bureau had no state permit, it required the applicant to get a state permit as a condition to getting a Bureau contract.

With the foregoing in mind, I would suggest that the Section 4(a) language be as follows:

> SEC. 4. (a) AUTHORITY TO MAKE NATIONAL INTEREST FINDINGS. Upon application of any person proposing to construct an interstate coal pipeline distribution system, who has filed and secured approval of a water permit or acquired other appropriate authorization for reservation, appropriation, use or diversion of water under applicable state law as provided for in section 6 of this Act, the Secretary of Energy or his successor shall determine whether the construction of such system shall be in the national interest.

Federal Reserved Water Rights

The proposed addition of subsection (d) to Section 6 addresses the use of federal reserved water rights for coal slurry pipelines. This raises one complex issue. The proposed language does not distinguish between Indian and non-Indian reserved water rights. I can foresee no situation where non-Indian reserved rights, i.e., those rights for National Forests, military reservations, etc., could supply the amount of water required by a major interstate coal pipeline. Furthermore, after the holding of the U. S. Supreme Court in United States v. New Mexico, 438 U.S. 696, 57 L.Ed. 1052, 98 S.Ct. 3012 (1978), I doubt that a coal slurry pipeline would come within the purposes for which such lands were reserved.

The large block of existing reserved water is that reserved for various Indian tribes. Presently, there are approximately forty five suits in various state and federal courts throughout the western United States for the adjudication and quantification of these Winters doctrine reserved rights. In your capacity as Chairman of the Subcommitee on Public Lands and Reserved Water Rights, I know you have become familiar with the proposals for congressional action in this area. I do not see S.1844 as the right legislation for resolving the question of whether Indian water should be used off the reservation. Also, if a slurry pipeline were moving coal produced from an Indian lease, I see nothing wrong with moving it with Indian water. This is roughly the situation with the Black Mesa coal pipeline which supplies the Mojave Power Plant in southern Nevada with coal from the Black Mesa Mine on the Navajo Reservation in Arizona.

Water for Black Mesa Pipeline comes from wells on the Indian reservation, although I understand that state permits have been issued for those wells. Even with state permits, the Navajo Tribe might, within its Winters rights claim this underground water as a reserved right.

I would suggest that you shift the focus of subsection 6(d) away from reserved water rights and toward federal water projects. This could be done by requiring that state water laws be followed to obtain water from federal projects. As I mentioned in my testimony, this is already the situation for federal reclamation projects, which under Section 8 of the Reclamation Act of 1902, must get project water under a state permit. See California v. United States, 438 U.S. 645 (1978). No parallel requirements exist for those projects constructed and administered by the Corps of Engineers. However, the Corps does not normally grant contracts for use of project water without requiring the applicant first to get a state permit. For example, the Corps' manual on "Water Resources--Policy and Authorities", dated May 27, 1981, states:

> Downstream waters made available by a project are subject to allocation under state laws. The parties desiring to use the water impounded by a reservoir must acquire the necessary water rights under the provision of state laws, and regulations, and resolve conflicts among users at the local or state level. The Corps provides flow regulation service or storage space within the reservoir to water users as authorized and is not involved in adequacy or timing of the acquisition of water rights.

In the few cases where the Bureau has built projects without a state filing, and as to Corps projects, the language of Section 6 of the proposed legislation should insure compliance with state law if that water is to be used. Thus, since I do not believe that there is any federal reserved water which could be made available, other than the Indian reserved water, and since I do not think the Indian reserved water ought to be dealt with in this context (it is simply too complex and too important a problem for the Indians), I do not believe that we need this suggested amendment. I think the Section 6 language as amended by Dean Frank Trelease is adequate.

Conclusion

In conclusion I would urge you to modify your proposed amendments to S.1844 in the following manner:

Sec. 4(a). Page 4, line 4--either delete the amendment or require that the water right showing required be only that the entity seeking to use eminent domain holds either a right to use water under a perfected water right under state law, or has initiated such a right by filing and securing approval of an appropriate application with the state where the water will be diverted. In this regard I have suggested specific language above on page 4.

On Sec. 6(d), Page 7, line 15, I would place a period after the phrase "Nothing in this Act shall create a Federal Reserve water right" and delete the balance of the proposed amendment.

If something more definitive is desired to drive home the point that no federal right is to be created, etc., I would recommend that you follow the language of Section 8 of the Reclamation Act of 1902 from which I have made some deletions which were necessary there, but not appropriate here. So that you can see what the deletions are, I have typed and then drawn a line through them.

> ~~Sec. 8. (Irrigation laws of States and Territories not affected. Interstate streams. Water rights.)~~ That nothing in this act shall be construed as affecting or intended to affect or in any way interfere with the laws of any State or Territory relating to the control, appropriation, use or distribution of water used [in irrigation], under state permit or state water law ~~or any vested right acquired thereunder and the Secretary of the Interior, in carrying out the provisions of this act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof: Provided, That the right to use of water acquired under the provisions of this act shall be appurtenant to the land irrigated and beneficial use shall be the basis, the measure, and the limit of the right.~~

Frank Trelease's suggested changes to Sec. 6 are enclosed.

Very truly yours,

Edward W. Clyde

Edward W. Clyde

EWC:ML

Encl.

Frank J. Trelease: Final Suggestions For Amended Section 6 of S. 1844

SEC. 6(a) The United States or its agents, permitees, licensees, or transferees or any interstate coal pipeline ~~distribution system-found-to-be-in-the-national-interest under-section-4-of-the-Act~~ shall not reserve, appropriate, purchase, transfer, use, divert, dedicate, or claim water within any State for an interstate coal pipeline distribution system ~~found-to-be-in-the-national-interest under-section-4-of-this-Act~~, unless such reservation, appropriation, purchase, transfer, use, diversion, dedication or claim takes place pursuant to and in compliance with ~~state~~ the substantive and procedural law of that State relating to the control, appropriation, use or distribution of water and the protection and enforcement of water rights.

(b) Pursuant to the commerce clause in article I, section 8, of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions ~~terminating-use~~ for protecting rights of other appropriators and enforcing the laws of priority, on permits or authorizations for

the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system ~~found-to-be in-the-national-interest-under-section-4 of-this-Act~~ shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.

(c) Nothing in this Act shall ~~alter~~ affect in any way the validity of any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

or pre-empt

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OF COUNSEL
FRANK J. ALLEN
ROLAND R. WRIGHT

June 11, 1982

Honorable Malcolm Wallop
Committee on Energy and Natural Resources
United States Senate
Washington, D. C. 20510

Re: Proposed Amendments to S.1844

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Frank Trelease's suggested changes to Sec. 6 are enclosed.

Very truly yours,

Edward W Clyde

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Frank J. Trelease: Final Suggestions For
Amended Section 6 of S. 1844

SEC. 6(a) The United States or its agents, permitees, licensees, or transferees or any interstate coal pipeline ~~distribution system-found-to-be-in-the-national-interest under-section-4-of-the-Act~~ shall not reserve, appropriate, purchase, transfer, use, divert, dedicate, or claim water within any State for an interstate coal pipeline distribution system ~~found-to-be-in-the-national-interest under-section-4-of-this-Act~~, unless such reservation, appropriation, purchase, transfer, use, diversion, dedication or claim takes place pursuant to and in compliance with ~~state~~ the substantive and procedural law of that State relating to the control, appropriation, use or distribution of water and the protection and enforcement of water rights.

(b) Pursuant to the commerce clause in article I, section 8, of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions ~~terminating-use~~ for protecting rights of other appropriators and enforcing the laws of priority, on permits or authorizations for

the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system ~~found-to-be in-the-national-interest-under-section-4 of-this-Act~~ shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.

(c) Nothing in this Act shall ~~alter~~ affect in any way the validity of or pre-empt any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

rec

McGEORGE SCHOOL OF LAW
UNIVERSITY OF THE PACIFIC 3200 Fifth Avenue, Sacramento, California 95817

1982 JUN 18 AM 10 3

June 17, 1982

The Honorable Malcom Wallop
United States Senate
204 Russell Senate Office Building
Washington, D.C. 20510

Dear Malcom:

I very much appreciated the opportunity to testify on the water rights aspects of the coal slurry pipeline bill, since it allowed me to restate a warning I have tried to make before, that without something like Section 6 of S. 1844, the attempts of the western states to put special controls on interstate slurry pipeline's water rights are probably doomed to failure. With S. 1844, however, the states' efforts to manage the development of their coal and water resources should be secure from any challenge that they impose impermissible burdens on interstate commerce.

I had not intended to write anything further for the record, but I have just read the statement submitted by the Attorney General for the State of Wyoming, and I cannot refrain from answering it. General Freudenthal says that "the language of the bill may be inadequate to fully protect state water rights". He bases his objections on the same cases we have discussed before - First Iowa, not at all like your bill, and Arizona v. California, reputiated in California v. U.S.. Then, rather amazingly, he twists New England Power Company (very much in favor of your effort) into an argument against it. He does this by saying that the Supreme Court rejected New Hampshire's argument that Section 201(b) of the Federal Power Act "saves" state law regulating the exportation of hydroelectric energy and enables the state to place a ban on the exportation of power. That is not an accurate characterization of the statute involved. The 1939 amendment to the Act provided that it "shall not ... deprive a state or state commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a state line". The New Hampshire Commission ordered the power company to discontinue exporting power, on the ground that the use within the state of the company's cheap power would cause the savings to inure to the benefit of the power customers within the state. This order, said the Supreme Court,

was "simple economic protectionism," and an impermissible burden on Interstate Commerce. The order would have been unlawful before passage of the Federal Act, and it was still unlawful after the passage of the Act. If New Hampshire had had lawful regulations (on matters such as dam safety, power line construction), those would have been saved from usurpation by the Federal Act. In otherwords, the Federal Act did not make anything unlawful that had previously been lawful. But it did not do the reverse, and make lawful what was unlawful. This is exactly what Section 6(b) is attempting to do, and this the Supreme Court said in that case could be done if the correct language was used -- which Section 6 does.

Any good lawyer can state a position so that it sounds reasonable at first blush. Any while there may be two sides to any argument, often one is clearly right. General Freudenthal attempts to raise a doubt as to the ability of Congress to permit a state to place a burden on interstate commerce. But that doubt seems clearly overridden by the great weight of authority. The opposing arguments in favor of congressional authorization of state regulation of commerce were set out by myself, Mr. Clyde and Mr. Widman at the June 8th hearing, and are further supported by the Vinson and Elkins memorandum of February 21, 1981, and the House Interior Committee Staff report to Representative Udall dated December 21, 1981.

What General Freudenthal does not seem to realize is that state water law is now endangered and that your bill represents that the best effort to save it. He, and others, argue that it "may be insufficient" to "protect other prior rights". He offers nothing better, and right now, in my belief, the Wyoming restrictions are almost certainly invalid under the last position taken by the Supreme Court in the affirmance of the Texas-Oklahoma case, Altus v. Carr. Even if the Court were now to approve the Nebraska restriction in the Sporhase case there would still be doubt as to whether the Wyoming statute and South Dakota procedures are more like the Texas case than the Nebraska case.

His arguments are not objections to passage of S. 1844, but challenges to the draftsman to use the proper language in the present bill. It is my belief that in its present form, or as improved by suggested amendments, Section 6 is more than a "savings clause", it is a "constitutionalizing clause" that gives congressional approval to otherwise invalid state laws. I still believe that S. 1844 will meet your requirements for state law protection and at the same time eliminate further constitutional objections.

Sincerely yours,

Frank

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Professor of Law

FJT/yh

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Sincerely yours,

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Senator **Wallop**. Thank you very much. Senator McClure?

The Chairman. I have no questions.

Senator **Wallop**. Senator Johnston?

Senator **Johnston**. Just very briefly, Mr. Neufeld, you say that every State affected by the use of water should have a veto on that use?

Mr. **Neufeld**. I don't believe I said that. I believe what I said was that every State has a right to allocate the water within its boundaries until it begins interfering with the rights of other States, and at that point the States have got to work it out either in an equitable apportionment or Congress has got to reach some resolution of that.

Senator **Johnston**. Who decides whether this interferes or not?

Mr. **Neufeld**. The Supreme Court has had no trouble in determining those things in apportionment lawsuits in the past. Congress has the authority to do that with respect to the Missouri River.

What we are asking is that you please don't do that now respecting the rights of the States because we haven't done anything that has harmed, that could conceivably harm any downstream State at this point.

Senator **Johnston**. Because the amount of water taken in the ETSI pipeline is so small, it is de minimus?

Mr. **Neufeld**. You bet. In 1931 in the case of *New Jersey* v. *New York* in which Justice Holmes gave his famous statement that a river is more than an amenity, it is a treasure, Justice Holmes then went on to allow the diversion of 6 percent of the annual flow of the Delaware River to the Hudson River Basin in New York. We aren't even approaching that in South Dakota, and I just don't see—that is a standard that has been established in the past. I don't think anything that close is going to happen in the Missouri River in the foreseeable future.

Senator **Johnston**. Why shouldn't you have a right of eminent domain if other pipelines are going to do the same thing with South Dakota?

Mr. **Neufeld**. I think that that is a decision that should be left as the prerogative of the U.S. Congress, and we just take no position on the eminent domain issue.

Senator **Johnston**. Thank you.

The **Chairman**. While you indicate that the States ought to work it out themselves, your State was in conflict with a neighboring State.

Mr. **Neufeld**. You bet. I will confess right here before this committee that there was some attempt by our representatives to try and reach a congressional resolution of that problem.

The **Chairman**. If you hadn't come to agreement with ETSI on the sale of water, you would still be in conflict.

Mr. **Neufeld**. We probably would be in litigation with them right now.

The **Chairman**. And litigation is the Federal court?

Mr. **Neufeld**. You bet.

The **Chairman**. As matters of right between States?

Mr. **Neufeld**. You bet.

The **Chairman**. Based upon interference with the consumption of water in your State?

Mr. **Neufeld**. You bet.

The **Chairman**. Based upon that unreasonable interference that you have referred to earlier? Is that what is the basis for your lawsuit?

Mr. **Neufeld**. I don't remember using the term, "unreasonable interference" except with respect to the ground water, yes, sir, that would be the case.

The **Chairman**. You found yourself in this case much as the other States down the stream fear they may be.

Mr. **Neufeld**. There is a very real and substantial difference here, Senator McClure. There is no doubt in anyone's mind, the Bureau of Land Management environmental impact statement, after spending millions of dollars on computer models, predicted that ETSI's use of Madison Formation was in fact going to inflict severe damage on the State of South Dakota. The downstream States are saying that our use of the Missouri River holds some sort of precedent for interbasin transfer. They have been benefiting, the Missouri Basin benefits from interbasin transfers to the tune of 640,000 acre-feet of water a year. They can prove no substantial and immediate damage from what we are doing with ETSI.

The **Chairman**. That is the basis, the distinction you are making?

Mr. **Neufeld**. Absolutely.

The **Chairman**. That they can't prove it?

Mr. **Neufeld**. They won't be able to notice it, and there won't be damage.

The **Chairman**. If that is the basis of your claim, if they could prove damage, then you would say they have a right to at least take that case to court?

Mr. **Neufeld**. You bet. If we start diverting water from the Missouri River to the extent that it interferes with some municipal water supplies, Sioux City's water supply or some industrial use of that water or any other need that they can establish under State law or Federal law, I invite them to sue us. We ought to be forced to be good neighbors. We are only asking they be good neighbors to us now.

The **Chairman**. You used in one instance a 6-percent test or example.

Mr. **Newfeld**. That is an example, yes, sir, not a test.

The **Chairman**. Would 6 percent be enough of an interference that you would think they would have, if you were going to take 6 percent of the water, that they would have a case against you?

Mr. **Neufeld**. I doubt it, and I will tell you why. In 1974, then Assistant Secretary of Interior Jack Horton asked the Missouri River Basin Commission which is now defunct, but it was a Federal-State entity consisting of Federal agencies in the basin and representatives of all 10 States in the basin appointed by the Governors of those States, to please evaluate how much water could be available in the main stem of the Missouri River for industrial water marketing in the States of Wyoming, Montana, and North Dakota. Then an ad hoc committee of the Commission was formed, and it was overseen. That committee consisted of the Commission chairman who was the Presidential appointee for the Commission; the vice chairman who was the representative of the State of Nebraska; the Governor's appointee to the Commission; representatives from the Corps of Engineers and the Bureau of Reclamation. That ad hoc committee was overseen by a committee of the whole. All of the States reviewed their work. All of the Federal agencies reviewed their work, and it was their unanimous determination that up to 3 million acre-feet of water a year——

The CHAIRMAN. I am not talking about the fact of that particular case. I am talking about what is your theory upon which you say you have a right of action against Wyoming but the downstream States don't have a right of action against you?

Mr. NEUFELD. It is the immediacy and the extent of the harm.

The CHAIRMAN. All right, but in one instance you had indicated a 6-percent interference might be sufficient. You are not sure that would be the case?

Mr. NEUFELD. I did not say 6 percent interference might be sufficient. I said the Supreme Court has allowed as much as 6 percent diversion.

The CHAIRMAN. All right, so anything under 6 percent would not be sufficient?

Mr. NEUFELD. I would say there is precedent for allowing that much. You would have to look at the individual cases, but there is precedent for allowing that much.

The CHAIRMAN. At what point is there a sufficient interference to allow access to the courts to protect State's rights?

Mr. NEUFELD. I have no idea.

The CHAIRMAN. Is 10 percent enough?

Mr. NEUFELD. That is the point I am trying to make about the Missouri River basin. In 1974 all of the State representatives in the basin approved a report to the Department of Interior saying that 3 million acre-feet of water out of Missouri could be made available each year for industrial water marketing purposes. That represents approximately 15 percent of the average annual stream flow.

The CHAIRMAN. That is based upon an agreement of the States?

Mr. NEUFELD. They approved it.

The CHAIRMAN. That's my point. They agreed.

Mr. NEUFELD. There is no compact.

The CHAIRMAN. There is no compact. Would there be a compact based on 15 percent?

Mr. NEUFELD. I am not sure. I don't know if there could be a compact based on 15 percent. That is awfully hard to say. Those kinds of things are like mating elephants. They have to reach very high levels and take a long time to produce any results. They were under negotiation for 20 years. I can't tell you what States are going to do with respect to a compact.

The CHAIRMAN. We at some point have to make some kind of a way of determination either in this body or leave it to somebody else.

Mr. NEUFELD. My point is I don't think the determination has to be made. The threat is not that real and not that imminent.

The CHAIRMAN. You don't think that all the coal slurry pipelines that will be built at any place on the Missouri River system take as much as 6 percent of the water supply?

Mr. **Neufeld.** No. The Missouri River Basin Commission study that was done on coal assessment, water assessment for coal technology, projected by the year 2000, 78,000 acre-feet of water would be necessary for coal slurry pipelines. We have already provided 50,000 of that to ETSI through State's water rights.

The **Chairman.** Does that mean that there is only then 28,000 feet?

Mr. **Neufeld.** That means their projection is that there would probably only be used another 28,000 acre-feet of water.

The **Chairman.** Does that mean their projection may be faulty?

Mr. **Neufeld.** Their projection could be faulty.

The **Chairman.** If one pipeline takes two-thirds of the projected supply, what would happen if another pipeline were put in?

Mr. **Neufeld.** You probably wouldn't transport coal. I don't understand your question.

The **Chairman.** And it would transport what? Let me just put it this way. Obviously, if another pipeline the same size as ETSI's pipeline were put in, it would exceed by one-third the amount of the projected total.

Mr. **Neufeld.** Sure. Projections are the best estimates available. Even at that point, even at 100,000 acre-feet, you are only talking about five-tenths of 1 percent of the coal.

The **Chairman.** I understand that, but let's don't talk about a 78,000 acre-foot projection of, as a matter of fact, one pipeline took two-thirds of that.

Mr. **Neufeld.** I think what I am saying is that, based on their projections, even if you double their projections, you can't expect to see more than two or three or four more coal slurry pipelines in that area of the country.

The **Chairman.** OK. I understand that, and I don't mean to quarrel with you. I am trying to get some perspective of what the problem is, if as a matter of fact there is any.

Mr. **Neufeld.** I don't think there is one.

The **Chairman.** There is none from your standpoint. There isn't any as long as they use the Missouri River water?

Mr. **Neufeld.** That's right. I believe that the realistic projections are in anticipation of what water energy development is going to use should it all be made out of the Missouri River without one bit of harm to downstream States.

The **Chairman.** Should we condition this legislation upon the use of the Missouri River water—period?

Mr. **Neufeld.** No. I don't think that the Federal Government should get into the business of allocating water resources. I think you ought to let the States make that decision.

The **Chairman.** Thank you very much, Mr. Chairman.

Senator **Wallop.** Thank you, Mr. Neufeld. I would just observe that the 50,000 acre-feet of water which South Dakota has provided to ETSI is not all for ETSI. The original projection of that was between 15 and 22.

Mr. **Neufeld.** Yes. The first pipeline that they are now in the process of constructing or they want to build immediately will consume 20,000 acre-feet of water. It is my understanding that, and they presented testimony at our water rights hearing in South

Dakota that they do have plans for a second pipeline with a somewhat more tenuous status at this point.

Senator **Wallop**. But South Dakota intends to use some of that?

Mr. **Neufeld**. Sure, but not of the 50,000 acre-feet. Our South Dakota communities have water rights of their own in the western part. ETSI has committed itself to provide 4,300 acre-feet of capacity in its water pipeline to bring water to western South Dakota communities.

Senator **Wallop**. Thank you very much.

Mr. **Neufeld**. Thank you, Mr. Chairman.

Senator **Wallop**. Next is Representative Thomas Coleman of Missouri.

Mr. **Coleman**. Mr. Chairman, I appreciate the opportunity to testify, and ask that my entire written statement be made a part of the record.

Senator **Wallop**. It will be.

STATEMENT OF HON. E. THOMAS COLEMAN, A U.S. REPRESENTATIVE FROM THE STATE OF MISSOURI

Mr. **Coleman**. I would like to address my remarks principally to my views on the use of water, and in particular to the Missouri River basin in relationship to the coal slurry pipeline eminent domain legislation we have before us.

Without going into all the details that I know the Senators already understand about the proposed ETSI pipeline, let me just say that it is a pipeline which would go from Wyoming 1,300 miles out of the river basin to Arkansas where the coal slurry mixture would be used by the utilities in Arkansas, Louisiana, and Oklahoma to purchase the coal for their utilities.

Mr. Chairman, in the last several years we have seen in the Midwest exactly what water means to us. The amount of water that you have or the lack thereof is probably one of the most serious, long-range problems confronting our particular region, and I think the Nation as a whole, potentially even more serious than the energy crisis. Just as Americans have discovered the hidden cost of energy in a multitude of products, they are also about to discover the hidden cost of water.

According to water experts, if you take the irrigation for the corn which was fed to the steer, we find in one Kansas City they have accounted for 3,500 gallons worth of water. We know that the water that goes into producing a thousand pound steer would be enough to float a Naval destroyer. It takes almost 15,000 gallons of water to grow a bushel of wheat, and 60,000 gallons to produce a ton of steel. It took 120 gallons to put that single egg on the breakfast table this morning.

We can hardly ignore downstream the impact of the coal slurry pipeline on the cities and towns in the State of Missouri. For example, in our State alone, 70 percent of the population receives its drinking water from the Missouri River, including our two largest metropolitan areas, Kansas City and St. Louis.

Now the South Dakota-ETSI coal slurry pipeline sale raises a significant concern for those in the downstream States because this sale would result in large-scale transfer of water from one State in one basin to another State in a totally different river basin, and Senator, let me emphasize this is the concern we have—it is the precedent of transferring water from one basin to another which disturbs us most about this particular pipeline proposal. We know that if water is used for irrigation or municipal consumption or industrial applications within a water basin, about 60 percent of that water will eventually find its way back to that river basin.

On the other hand, should the Oahe Reservoir be tapped for the ETSI pipeline, we will see water going from the Missouri River basin, ending up in Arkansas outside the basin and not one drop of that Missouri River water will ever find its way back to the Missouri basin. We have heard from representatives of the State of South Dakota that they just dismiss the fact, that the 50,000 acre feet of water from a reservoir containing 23 million acre-feet doesn't seem like a whole lot of water, but I must point out that this is not the only proposal that we are facing of diverting the Missouri River. Already there are on the drawing board 10 million acre-feet worth of projects to siphon water off the Missouri River, and this is nearly half the annual flow at Sioux City, Iowa.

I think as Senator McClure pointed out that this is the first and possibly not the last potential diversion for coal slurry pipeline usage off of this river. We only need to look westward to see what happened in the Colorado River experience to find that it is exhausted by the time it reaches Mexico. The distribution of the Colorado River by the U.S. Supreme Court in the seven Western States through which it flows has certainly not worked. Because of the tangle of demands and court decisions, these States and the country of Mexico actually have a right to more water than the Colorado River contains, and we in Missouri and downstream States do not want to reach a similar point of no return in relationship to the Missouri River. Of course, the best solution to all of these problems would be a voluntary implementation of an interstate compact on the water between the 10 basin States.

However, at this time the States have not come together to work out a plan for future utilization of the river. For these reasons and for the Colorado River experience, I believe it is necessary for Congress to act, and while the water protection provisions in S. 1844 indicate a first step in this direction, I must point out, though, there are no provisions in this bill that will prohibit a transaction such as the one that I have described in the interbasin, interstate transaction. Mr. Chairman, at the present time the Corps of Engineers is actually considering the application by ETSI for a permit for a water supply intake structure for this particular pipeline. Myself and 12 other colleagues in the House have written to the Corps of Engineers expressing our disapproval and our opposition to their approval of this permit.

We represent some 6 million users of the Missouri River downstream States. In addition, I have written to the Forest Service of the USDA pointing out that their initial decision to allow ETSI to cross Federal land it administers must be in error and shortsighted, and also addressed this issue to the Secretary of Agriculture.

I have taken these actions and my colleagues have joined with me because of the responsibility we feel that Congress should have in setting and determining Federal policies in reference to interbasin transfers of water.

Finally, the administrative approval of the ETSI transaction before Congress has actually had an opportunity to vote on this vital issue I feel is a usurpation of the proper role of Congress in determining Federal policy. I don't care if it is the Corps of Engineers or the Secretary of Agriculture or who it is. I think this is an important enough issue that the bureaucracy should not settle it before we in the Congress, the elected representatives of the people, actually have a chance to vote on our respective floors. At the present time, the House is considering legislation dealing directly with this issue of interbasin transfers of water and coal slurry pipelines. The measure under consideration is H.R. 5278 which I believe provides the solution to the problems in the Missouri River diversion and contains provisions to prohibit the sale or transfer of interstate water outside of State unless the sale or transfer of the water is agreed to by the other States in the drainage basin of those waters.

This measure was offered as an amendment to the Coal Pipeline Act of 1981 and my subcommittee considered this legislation and it failed on a 15-to-15 tie vote. This measure will be again offered in the full Committee of Public Works in the House and/or on the floor of the House of Representatives, if necessary.

I would like to submit a copy of H.R. 5278, Mr. Chairman, for the record.

We have heard from the Representatives of South Dakota. I couldn't pass up the opportunity of at least responding to some of his claims that South Dakota is not getting any benefit whatsoever under the 1944 act. The fact of the matter is this very day, this very afternoon on the floor of the House, South Dakota's principal piece of legislation creating the Pipeline Act will be considered under suspension in the House of Representatives which will provide them with a project under the 1944 act. We heard a lot of talk about the environmental impact statement from the Bureau of Land Management regarding the ETSI pipeline.

Let me point out that there was very little, if any, and it completely ignored downstream uses of the Missouri River in the ETSI pipeline EIS that they promulgated. The Missouri River basin States in 1974 did make a statement regarding 3 million acre-feet a year of usage, but that was not to be an indefinite usage to the year 2000, and I don't think that one can use that argument for pirating the water under the ETSI pipeline transaction.

Mr. Chairman, I appreciate the opportunity to be with you today and make my statement regarding 1844, and if you have any questions, I will attempt to answer them.

[The prepared statement of Mr. Coleman and the text of H.R. 5278 follow:]

STATEMENT

Hon. E. Thomas Coleman

Mr. Chairman, I would like to thank you for this opportunity to share with the Committee my views on the water resource issues associated with S. 1844, which will permit the exercise of eminent domain for coal slurry pipelines. Recent proposals indicate that coal slurry pipelines may result in the transfer of river waters for use outside their basins; with your permission, I would like to focus my remarks today on the concerns that have developed in the Missouri River Basin in relation to these proposals.

As you know, the State of South Dakota has contracted to sell water from the Oahe Reservoir--which is connected to the Missouri River--to Energy Transportation Systems, Inc. (ETSI) for a coal slurry pipeline project. As I understand the agreement, ETSI will pay South Dakota $1.4 billion over the fifty year lifetime of the contract, in return for as much as 16 billion gallons of water per year. This water will be transferred from the Oahe Reservoir to the Powder River Basin coal mining region in Wyoming, where it will be mixed with coal; a coal slurry pipeline will then carry the 50-50 mixture from Wyoming approximately 1300 miles to Arkansas, where utilities in Arkansas, Louisiana, and Oklahoma are expected to purchase the coal.

The drought and killer heat waves we have experienced in the Midwest in the last several years have made us realize that water, or the lack thereof, is the most serious long-range problem now confronting our region, and the nation--potentially more serious than the energy crisis. Just as Americans have discovered the hidden costs of energy in a multitude of products, they are also about the discover the hidden costs of water. According to water experts, you can begin with the water that irrigated the corn that was fed to the steer, and find that a single Kansas City steak may have accounted for 3500 gallons. The water that goes into producing a thousand pound steer would float a naval destroyer. It takes 14,935 gallons of water to grow a bushel of wheat, 60,000 gallons to produce a ton of steel, 120 gallons to put a single egg on the breakfast table.

We can hardly ignore the impact of diversion on the cities and towns that utilize the Missouri River for drinking water. For example, in Missouri, nearly 70% of the population receives their drinking water from the Missouri River, including those who reside in our two largest metropolitan areas, Kansas City and St. Louis.

The South Dakota/ETSI coal slurry pipeline sale raises significant concern for those of us in downstream states. The sale will result in the large-scale transfer of water from a state in one basin to a state in another basin. It is the precedent set by this interbasin transfer that most deeply concerns me, and it is because this precedent involves the interbasin transfer of water by means of a coal slurry pipeline that I am here today.

When water is used for irrigation, municipal consumption, or industrial applications within a water basin, about 60% of the water returns to the basin. On the other hand, should the Oahe Reservoir be tapped for the ETSI coal slurry pipeline, we will see water from the Missouri River eventually ending up in Arkansas--outside the Basin, and not one drop of the ETSI pipeline water will ever be returned to the Missouri River Basin.

While 20,000 to 50,000 acre-feet of water from a reservoir containing 23 million acre-feet doesn't seem like much at this time, similar transfers in the future could have a more far reaching effect. Already there are proposals on the drawing board that would siphon off ten million acre-feet of water per year, which is nearly half the annual flow of the Missouri River at Sioux City, Iowa.

We are all aware that the Colorado River is virtually exhausted by the time it reaches Mexico. The distribution of its water by the United States Supreme Court to the seven western states through which it flows has not worked, and because of a tangle of unreasonable demands and court decisions, these states and Mexico have legal rights to more water than the Colorado contains. Before a similar point of no return is reached in reference to the diversion of Missouri River water, a solution to the controversies surrounding the diversion of Missouri River water must be achieved. Of course, the best solution to the problems surrounding the diversion of Missouri River water would be the voluntary implementation of an interstate compact on water use by the ten basin states. However, as of this time, the states have not come together to work out a plan for future utilization of the river.

For these reasons--the Colorado experience and the failure of the Missouri Basin States to address the water diversion issue--I believe it necessary for Congress to act. And while the water protection provisions in S. 1844 indicate a first step in this direction, I must point out that there are no provisions in this bill that will prohibit a transaction such as the one which I have described.

Mr. Chairman, at the present time, the Army Corps of Engineers is considering an application, by ETSI, for a permit for the water supply intake structure. I, and twelve of my colleagues in the House of Representatives, representing more than six million users of water in the Missouri River Basin, have contacted the Corps to express our opposition to approval of the permit. In addition, the United States Forest Service is considering an appeal filed by the State of Missouri, and other parties, as a result of its initial decision to allow ETSI to cross federal lands it administers. I have contacted both the Chief of the Forest Service and the Secretary of Agriculture to express my support for the appeal and the reversal of the initial decision. I have taken these actions because it is the responsibility of Congress to determine federal policy in reference to the question of interbasin transfers of water. Final administrative approval of the ETSI transaction before Congress has acted on this vital subject would represent an attempt to usurp the proper role of Congress in determining federal policy.

At the present time, Congress is considering legislation dealing directly with the issue of interbasin transfers of water in coal slurry pipelines. The measure under consideration, H.R. 5278, which I believe provides the solution to the problem of Missouri River water diversion, contains provisions to prohibit the sale or transfer of interstate waters outside a state unless the sale or transfer of the water is agreed to by the other states in the drainage basin of those waters. This measure was offered as an amendment to the Coal Pipeline Act of 1981 during subcommittee consideration, and failed on a tie vote of 15-15. The measure will again be offered as an amendment during consideration of the Act by the full Committee on Public Works and Transportation, or on the floor of the House of Representatives. I submit a copy of H.R. 5278 for the record.

Mr. Chairman, I would like to thank you once more for this opportunity to outline my concerns in reference to S. 1844. I hope you will find the comments I have shared helpful during further committee consideration of the measure.

I

97TH CONGRESS
1ST SESSION

H. R. 5278

To prohibit any State from selling or otherwise transferring interstate waters located in such State for use outside such State unless all other States in the drainage basin of such waters consent to such sale or transfer.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 16, 1981

Mr. BEDELL (for himself, Mr. BEREUTER, Mr. HARKIN, Mr. SMITH of Iowa, Mr. LEACH of Iowa, Mr. TAUKE, Mr. EVANS of Iowa, Mr. DAUB, Mr. GEPHARDT, Mr. SKELTON, Mr. VOLKMER, Mr. COLEMAN, Mr. BAILEY of Missouri, Mr. WHITTAKER, Mr. TAYLOR, Mr. EMERSON, and Mr. MARLENEE) introduced the following bill; which was referred to the Committee on Interior and Insular Affairs

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A BILL

To prohibit any State from selling or otherwise transferring interstate waters located in such State for use outside such State unless all other States in the drainage basin of such waters consent to such sale or transfer.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no State shall sell or otherwise transfer, for use outside of such State, water which is taken from any river or other body of surface water which is located in or which passes through more than one State or any aquifer or other body of ground water which underlies more than one State unless—

(1) there is in effect an interstate compact (A) between the States in the drainage basin of such river or other body of surface water, or (B) between the affected States, in the case of such an aquifer or other body of ground water, which governs such sale or transfer, and

(2) all the States which are parties to such compact consent to such sale or transfer.

O

Senator **Wallop**. Thank you very much. I just would point out that the bill that is under consideration here provides no water to anybody for any use. In fact, the whole point of this bill is to see to it that it does not provide any water to anybody for any use, and it really seeks to protect the rights of States to make their water allocation pursuant to State law.

Obviously if anybody's water use pursuant to State law affects the right of another State, that is a separate issue which can be resolved by them through the courts or through compacting as you suggest or any other thing, but I don't believe that in a piece of legislation like this or in any State's rights to allocate its water supplies, especially those that are compacted or that are sufficiently there, that any water use ought to be held hostage to the inactivity of the Congress.

I mean if that were the case, my State would never do anything again in water, I mean because we are the sort of crown jewel of the country out of which everything flows. It flows out of us in every direction and most of it arises there. Very little of it arises, just a little bit of the Platte River arises from Colorado. All of the rest of it flows out of us, and we would be simply unable to use water for anything, including irrigation, if we had to hold ourselves hostage to Congress activity.

Mr. **Coleman**. Could I respond or make a statement? I think the Senator is certainly correct in what 1844 attempts to do. What I am suggesting to the Senators is that we need to go beyond 1844 because there is really no reason we see, because of the geography or because of the principles of gravity, that any State because they are upstream has the opportunity to siphon off unreasonable amounts of water for usage outside that river basin, and again the principle I am concerned about is the environmental transfer from one basin to another basin of water outside of that basin.

Senator **Wallop**. I don't quarrel with that. By the same token, if they were to put on Oahe a steam generating plant, thermal generating plant, and use that water for that consumption, the same amount of coal would use anywhere from three to seven times as much water, depending on which system they are using. Water is just as gone, just as absolutely gone and unavailable for any use, and instead of a pipeline, it goes out by wire. It is the same thing, has the same effect, and yet I doubt if they were to use that water for a steam generating plant that the same amount of emotion would be involved. That is what is so difficult about this issue, or if they were to use, you know, some manufacturing process that used large amounts of water and they shipped it out in barrels, I don't know what it would be, it is just as gone from that basin, so the emotion of it belies the issue of what is at issue, and I don't believe that one use ought to be held more hostage than another use.

The whole thing that everybody loses sight of in water is the consumptive use, not which consumptive use, but consumptive use generally, and yet many, many consumptive uses fly by all the time without anybody so much as looking backward over their shoulder, and what we are trying to do here has really nothing to do with the issue that you raised.

I don't deny that is an issue and should be raised, but here we are really seeking in this section that we are holding a hearing on now to seek to protect the rights of States not to use water for slurry pipelines if they so choose, or to use it under the terms and conditions of their legitimate State law, and that is really I guess what is at issue here.

Mr. **Coleman**. I would agree with the Senator because there is nothing in this legislation that would prohibit the State of Missouri from having a coal slurry pipeline if they so desired.

Senator **Wallop**. There is nothing that would force it to, either. That's the whole point.

Mr. **Coleman**. If that is the concern, that's fine, but what I am suggesting is that as we approach the years of a little more limited water and the availability of water, it is not just the ETSI coal slurry pipeline. As I say, there are 10 million acre-feet on the drawing board now to siphon off the Missouri River through the Corps of Engineers or other projects. We are not zeroing in, we are not just taking ETSI to court as the State of Missouri is. We are not just here talking in general terms about ETSI. We are concerned about the use of the Missouri River and this is an opportunity for us to speak against the usage and the diversion of this river which is so important to nine other States in the river basin.

I wouldn't want to say that we totaly think that South Dakota doesn't have a right to use its water up there. I will be supporting on the floor South Dakota's rights this afternoon for them to build the pipeline that I mentioned earlier. We worked it out in my committee, but I don't think they have the absolute right to use all the water, an unreasonable amount of water, for any purpose that they want to take it out of our river basin. That is the statement I am trying to make.

Senator **Wallop**. Senator Johnston?

Senator **Johnston**. I have no questions, Mr. Chairman.

The Chairman. I might say to my colleague from the House I appreciate his statement. I think all of us are concerned about what will happen to those waters, whether or not actions that we take threaten the ability of the State for its own use, to control its own use or whether we have sufficient protection. I appreciate it.

Senator **Wallop**. Our next witness is Bob Edgar from Pennsylvania. Please proceed.

STATEMENT OF HON. ROBERT W. EDGAR, A U.S. REPRESENTATIVE FROM THE STATE OF PENNSYLVANIA

Mr. **Edgar**. Thank you very much. I ask unanimous consent that my full statement be made a part of the record. My testimony will sound like a carbon copy of the statement which was just made, so I will try and abbreviate it.

I feel strongly as Congressman Coleman has stated the issue, the case, and he referred to the legislation which I recently offered as an amendment in the Public Works and Water Resources Committee which did fail on a 15-to-15 tie to protect the area of our joint concern.

I have many objections to the coal slurry pipelines. Among my objections is included the provision of Federal eminent domain that would give pipeline developers broad and unusual powers to condemn private property, use Federal lands and obtain water without adequate safeguards. Also other modes of coal transportation such as railroads assert that they have the capacity to handle projected coal traffic. The level of coal-carrying capacity needed is also an uncertainty, depending on the fluctuations of the volatile world energy market, and third, one of my objections is that the technology costs and efficiencies of coal pipelines is unproven.

I released a report from the Congressional Budget Office which found in February 1982 in one of their papers that the new unit coal trains being used for this purpose are more energy efficient in their operations than coal pipelines, and I hope this committee will take a look at that Congressional Budget Office report, but the focus of our attention today is on the issue of water, and as Congressman Coleman said, the legislation which is before us provides some water rights provisions to protect the States rights.

However, protection of the rights of other affected States is noticeably absent from this legislation. Clearly the use of water from a river basin or body of ground water contained in several States affects all of those States, not just the individual State which might choose to divert water for a pipeline.

The interdependence of States on specific water resources has been recognized historically in the formation of interstate water compacts and commissions. However, not all the States have yet adopted such compact, nor have we had to deal in the past with the kind of large interbasin water transfers which would be created by the diversion of the water for the coal pipelines.

Let me simply say in summary that the issue is water, and I think the issue of water will be one which will be with us for the foreseeable future. I think water is as severe an issue as our energy crisis was for the seventies. We are just getting to an awareness of the value of water. We are looking at a number of issues on the House side in our Water Resources Subcommittee in terms of contamination of ground water, adequate water supply, the recharging of aquifers, and I think any legislation, whether it is coal slurry pipelines or any other energy legislation, which might be contemplated by either body, either the House or the Senate, ought to be very careful in its consideration of water use, and I would urge this subcommittee to look very carefully at the needs of States.

You heard a lot of testimony today about one individual pipeline. There are many proposed. There are other implications if Congress acts inappropriately in impacting on water systems that are in large multi-State basins, and I would urge this committee to be very cautious and careful. Look at the language that has been provided in the bill introduced by Congressman Bedell on the House side which was referred to earlier, and try to protect not only States rights of water but the impact of water decisions on those other States which may not have access to the source if in fact that source is diverted, and I thank you gentlemen for allowing me to testify this morning.

[The prepared statement of Mr. Edgar follows:]

Testimony of the Honorable Robert W. Edgar

U.S. Senate Energy and Natural Resources Committee, June 8, 1982

Subject: Coal Pipeline Legislation: S 1844

Thank you for allowing me to testify this morning on the important coal pipeline legislation which concerns both this committee and its counterpart in the House. At the outset I will tell you that I have been opposed the idea of granting federal eminent domain for coal pipeline development as this concept has been examined and debated over the past several years. While I recognize the need for development of American coal to promote energy independence, several aspects of the legislation which has been put forward indicate to me that federally sanctioned coal pipelines are not the way to go.

Among my objections are these:

- The provision of federal eminent domain would give pipeline developers broad and unusual powers to condemn private property, use federal lands, and obtain water without adequate safeguards.
- Other modes of coal transportation, such as railroads, assert that they have the capability to handle projected coal traffic. The level of coal-carrying capacity needed is also an uncertainty--dependent on the fluctuations of a volatile world energy market.
- The technology, cost, and efficiency of coal piplines is unproven. The Congressional Budget Office found, in a February 1982 paper, that the new unit coal trains being used for this purpose are more energy efficient in their operation than coal pipleines.

Although all of these issues bear discussion, I would like to focus my brief testimony on the issue of the potential hazards that coal pipelines may present for our nation's water resources. The water rights provisions contained in Senator Johnston's bill and the House bill--HR 4230--are very similar. Both bills preserve rights of individual states with regard to water use for coal piplines; however, protections of the rights of other, affected states are noticably absent from this legislation.

Clearly, the use of water from a river basin or body of groundwater contained in several states affects all of those states, not just the individual state which might choose to divert water for a pipeline. The interdependence of states on specific water resources has been recognized historically in the formation of interstate water compacts and commissions. However, not all states have yet adopted such compacts, nor have we had to deal in the past with the kinds of large interbasin water transfers which could be created by diversion of water for coal pipelines.

In dealing with the types of interbasin transfers envisioned in this legislation, we must protect the rights of all the states affected by the loss of water resources. Yet, both the House and Senate coal pipeline bills contain provisions which would directly preclude this type of protection. Section 6(b) of S 1844 apparently attempts to amend the Constitution by exempting coal pipeline water diversions from federal intervention under the commerce clause. Presumably, this type of protection is the correct constitutional role of the federal government.

While I do not think that a direct federal role in regulating such water transfers would be advisable, I believe that any federal legislation must at least guarantee the rights of all states affected by such a transfer. In fact, I offered such a proposal as an amendment in subcommittee mark-up of the House bill in April. While the amendment lost on a tie vote of the subcommittee, I will continue to strongly advocate the proper protection of water resources in any further consideration of coal pipeline legislation.

The exact language for the protection of water rights actually comes from a bill introduced by Congressman Berkley Bedell which has garnered substantial support in the House. The legislation would simply guarantee that an interstate compact granting proctection to all affected states would have to approve all out-of-state transfers of water by any individual state. Many states already have such agreements, of course, but in taking actions at the federal level we ought to guarantee that sensible procedures are used.

As I mentioned earlier, all the points I raised at the beginning of my testimony are important to your consideration of this legisaltion. I am here to emphasize that adequate protection of state water rights and national water resources must be viewed as crucial to any discussion of the merits of coal pipeline legislation. The provisions of the bills before us are inadequate in this area.

I would be glad to answer any questions.

Senator **Wallop**. Thank you very much. Senator Johnston?

Senator **Johnston**. Will some of us downstream States have the right to veto pollution put in the river upstream?

Mr. **Edgar**. I think that is a consideration that has to be made. We are 50 different States who have 50 different needs, and clearly the movement in Congress, in the House and Senate and in the White House, is toward States rights, but at some point just as in individual rights we recognize that the decisions that are made, whether it is in terms of pollution, whether it is in terms of water usage, whether it is in terms of water supply, have an implication that goes far beyond those States, and that is why we have a Federal Government.

Senator **Johnston**. I certainly agree with that. I think water usage, water pollution, and all of those things have implications which some day we may solve with compacts, congressional acts, or something similar. However, as the chairman said of the last witness, that is beside the point with respect to this bill.

This bill doesn't give any pipeline any water. Indeed it gives to the State a greater ability to say no than they might otherwise have.

Mr. **Edgar**. If the gentleman would yield on that point, there is a question about the amount of water that could be diverted. Your legislation is absent in its discussion of the supply and quantity. We are looking primarily at the South Dakota situation, but there may be other States affected by 6 or 10 or 15 or 20 or 30 percent diversion of water supplies, and I think we had better be careful not to have some unintended consequences of legislation that may be silent on issues that may have implication.

Senator **Johnston**. Present law is silent on that as well. We don't solve all the problems here, but we do give States more protection than they presently have.

Mr. **Edgar**. You give the States more rights than they presently have. I guess I am concerned that downstream States may in fact have to go the legal route through the judiciary branch rather than having clear signals from Congress that our intention is to make sure that before any coal slurry pipelines or any major diversions from one water basin to another take place that careful consideration has been made of the multi-State implications of that decision.

Senator **Johnston**. Under S. 1844, we do require the Secretary of Energy to make a finding of national interest.

Mr. **Edgar.** I'm encouraged to hear there will still be a Department of Energy.

Senator **Johnston.** The successor to the Department of Energy, somebody if they are still around, would make a finding that it is in the national interest based on whether the construction of such a system shall be in the national interest. This would certainly include the question of whether it is in the water interest of the Nation.

Mr. **Edgar.** I appreciate the Senator's intention in that language and would hope that that would be the commitment if in fact this legislation passes without something like the Bedell legislation.

Senator **Johnston.** Thank you, Mr. Chairman.

Senator **Wallop.** Senator McClure?

The **Chairman.** I have no further questions. I appreciate your testimony, however.

Senator **Wallop.** I would just make two observations, and clearly I understand the concerns that downstream States have. I also have a very great and deeply imprinted concern that an upstream State such as mine has that we hold all our decisions, as I said to your colleague, hostage to what Congress might or might not do. We just are going to be very, very hard pressed to use any of our water in our State even that which is presently compacted to us under what we consider a right.

We have lost a lot of rights out of certain environmental laws in which the use of a late-blooming project in Wyoming was held accountable for all the downstream effects that it may cause, including those places through which it traverses that cause greater effects in the first place, and I see our problems, especially in the higher Mountain States, as being severe in that area.

I would otherwise make a statement that whether or not these things are cost efficient is up to the private sector, not us. If somebody wants to go broke with a billion dollar project, that is presumably their right. If they can persuade their investors that it is a good idea and it is not, that's the risk.

Mr. **Edgar.** Would the Senator yield at that point? The point I am making here is that you are correct that it is up to the private sector to make that decision, and entering into discussions should be the Congressional Budget Office report which talks about cost efficiency, but the Congress of the United States is being asked to give Federal eminent domain and the rights on coal slurry pipelines, to give Federal access to condemning large portions of land.

Senator **Wallop.** Land, yes, but no water.

Mr. **Edgar.** That is correct, but what I am suggesting in those three objections to coal slurry pipelines is that this is not a private sector decision. That is a Federal decision in terms of Federal eminent domain which we have to make, and I suggest that that is not an appropriate thing for us to do. We should let the States decide on a case-by-case basis, and the private sector will have to go to each of those States to get its rights and privileges of passing or going across projected lengths.

Senator **Wallop.** I thank you very much for your statement this morning. I appreciate your coming over.

Mr. **Edgar.** Thank you.

Senator **JOHNSTON**. Mr. Chairman, I would like to put in the record at this point a report from the Virginia Center for Coal and Energy Research of Virginia Polytechnical Institute and State University on a comparison of energy use between unit trains and coal slurry pipelines. It comments on that same CBO study, and points out the fact that the most energy efficient form of transportation is a function of distance and terrain and whether one is going up and down hills. The report concludes that coal slurry pipelines are very favorably compared with unit trains.

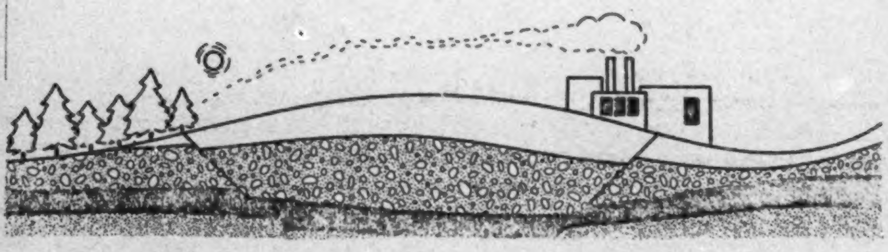
Senator **WALLOP**. It will be inserted in the record.

[The report follows:]

Comparison of Energy Use Between Unit Trains and Coal Slurry Pipelines

Walter R. Hibbard, Jr.
Director, Virginia Center for Coal and Energy Research

Virginia Center for Coal and Energy Research
Virginia Polytechnic Institute
and State University • Blacksburg, Virginia



Comparsion of Energy Use Between Unit Trains and Coal Slurry Pipelines

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April 2, 1982

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EXECUTIVE SUMMARY

A recent and widely reported study[1] by the C[redacted] outlines the energy cost for moving freight by various modes and includes a comparison of railroads and slurry pipelines in transporting coal. The study found that [redacted]

This Center's report critiques the CBO study, noting that the comparison between unit trains and slurry pipelines needs more balance. It also presents results of a [redacted] showing that [redacted] On the basis of this study, it appears that [redacted]n for making a selection decision between unit trains and slurry pipelines.

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[1] Staff Working Paper, Congressional Budget Office, "Energy Use in Freight Transportation," Washington, D.C., February 1982.

REVIEW OF THE CBO REPORT AND ITS DATA SOURCES

The Congressional Budget Office (CBO) has released a study entitled "Energy Use In Freight Transportation," dated February 1982, which was prepared for the Commerce, Transportation and Tourism Subcommittee of the House Committee on Energy and Commerce.

The study estimates the energy efficiency of various freight transportation modes, in terms of Btu per ton-mile, includes not only the propulsion energy but also vehicle-manufacturing energy, construction energy, and the effect of circuity as well as refinery losses. The energy for empty movements, and for the non-cargo weight of the vehicle are also accomodated.

The CBO study results, as taken from the printed study, are outlined in Summary Table 1.

SUMMARY TABLE 1. ESTIMATES OF TYPICAL FREIGHT ENERGY EFFICIENCY (In BTUs per ton-mile of cargo)

Mode	Modal Energy (a)
Rail - Overall	1,720
TOFC (b)	2,040
Unit coal train	890
Truck	
Average intercity	3,420
Barge - Overall	990
Upstream	1,280
Downstream	620
Air	
All-cargo plane	28,610
Belly freight	3,900
Oil Pipeline	500
Coal Slurry Pipeline	1,270

(a) Combines propulsion energy, maintenance energy, vehicle manufacturing energy, construction energy, and the effect of circuity, as well as refinery losses and the energy used for empty movements and for the non-cargo weight of vehicles. One gallon of diesel fuel contains on the average 138,700 BTUs (British Thermal Units) of energy, and a gallon of gasoline 125,000 BTUs. A ton-mile represents the movement of one ton a distance of one mile.

(b) Trailer on flat car.

The news media reports of the study have focused on the conclusion that coal can be moved by unit train for one-third less energy per ton-mile than by coal slurry pipeline.

An analysis of the base components of energy use employed by the CBO is shown in Table 1 as taken from the study.

TABLE 1. ESTIMATES OF BASIC COMPONENTS OF ENERGY USE FOR SIX MODES OF FREIGHT TRANSPORTATION (In BTUs per net ton-mile)

Mode	Propulsion Energy	Vehicle Manufacturing Energy	Construction Energy	Maintenance Energy	Circuity
Rail - Overall	660	90	200	180	1.52
TOFC	1,000	80	200	140	1.44
Unit coal train	370	60	100	60	1.51
Truck					
Average intercity	2,100	100	300	300	1.22
Barge - Overall	420	40	50	30	1.83
Upstream	580	40	50	30	1.83
Downstream	220	40	50	30	1.83
Air					
All-cargo plane	26,250	150	100	750	1.05
Belly freight	3,570	20	20	100	1.05
Oil Pipeline	325	0	25	100	1.10
Coal Slurry Pipeline	1,000	0	50	100	1.10

As can be seen in the first data column, the major source of the unit train advantage lies in estimated propulsion energy which is nearly one-third of the coal slurry pipeline. The original summary of propulsion energy estimates studied in the CBO report, which led to the figures used in their report, is reproduced in Table A-8.

For the comparison between pipelines and trains in the CBO study, the coal slurry pipeline data were based partially on design estimates ranging from 410 Btu expended per ton-mile to 1740 Btu per ton-mile for a 1170-mile pipeline and a 200-mile pipeline, respectively. Also used by CBO was the actual operating data for the 273-mile, 4.8 million-ton per year Black Mesa pipeline which varied from 601 Btu per ton-mile to 4800 Btu per ton-mile. The Southern Pacific slurry pipeline operating data for Black Mesa are 1042 Btu per ton-mile and probably are the most reliable since the railroad has operated the pipeline from its inception.

TABLE A-8. SUMMARY ESTIMATES OF PROPULSION ENERGY REQUIREMENTS (In BTUs per ton-mile of cargo)

Mode	Range of Estimates	Typical Estimate	Estimate Adjusted for Energy Losses in Refining
Rail - Overall	550 - 690	630	660
TOFC	730 - 1,370	950	1,000
Unit coal train	220 - 410	350	370
Truck			
Average intercity	1,400 - 2,530	2,000	2,100
Barge - Overall	250 - 500	400	420
Upstream	---	550	580
Downstream	---	210	220
Air			
All-cargo plane	23,310 - 28,630	25,000	26,250
Belly freight (a)	3,300 - 29,950	3,400	3,570
Oil Pipeline	160 - 540	325	325
Coal Slurry Pipeline (b)	410 - 4,800	1,000	1,000

(a) The wide range of estimates results from the use of two different methods.

(b) The wide variation results from different degrees of comprehensiveness (pumping energy alone as against coal preparation and dewatering as well), and also from the differences between engineering studies of large--as yet unbuilt--pipelines and the smaller-scale line now in operation.

However, in the CBO study there was no mention of the Consolidation pipeline in Ohio which is 108 miles long and which carried 1.25 million tons per year when it operated. Data from a Consolidation Coal Report reprint from Coal, June 1964, implies 1097 Btu were used per ton-mile when pumping at only a 10,000 Btu per kilowatt hour heat rate.

To better understand our critique of the CBO report it is necessary to examine in more detail the source of the railroad and slurry pipeline propulsion data. The unit train propulsion energy data used by the CBO was based on estimates from the following sources.

Conrail 1977	319 Btu/ton-mile
Office of Tech. Assessment	340-580 Btu/ton-mile
Western Railroad Association	222 Btu/ton-mile
Coalstrip, WY, to St. Paul, MN	400 Btu/ton-mile

Data from actual unit train field tests on propulsion energy were included as follows:

Burlington Northern (1264 miles)	256 Btu/ton-mile
Boston & Maine (4114 miles).	412 Btu/ton-mile

When examining the data sources from the CBO report it becomes apparent that the study's slurry Btu expenditure estimates are based primarily on short, relatively small capacity coal slurry pipelines, while the unit train estimates are based on long, non-stop runs over level terrain.

Other groups have made similar observations about weaknesses in the CBO study. The Slurry Transportation Association, in a news release, criticized the study based on the following rationale. The CBO study considered only unit trains which traveled non-stop on essentially level terrain. The study assumed a 20-year lifetime for hopper cars and equipment. The energy cost of freeze-proofing the coal in winter was left out of the railroad calculation. Several energy expenditures were included in the energy consumption figure for the slurry pipeline while a comparble process was not considered for the railroad. These coal handling and preparation processes were: grinding, washing, loading, product loss in transit, and unloading or switching costs.

SUMMARY OF VCCER SLURRY PIPELINE STUDY RESULTS

The VCCER has recently conducted a preliminary study[2] for a range of coal slurry pipelines from southwest Virginia to the Hampton Roads area. The study finds that propulsion energy efficiency is a strong function of distance and pipeline capacity as well as terrain.

Results from the investigation of four routes originating in Grundy or Big Stone Gap and terminating at Hampton Roads, were determined for six different capacity pipelines summarized as follows:

Annual Capacity	Miles	Energy Efficiency
2.5 million tons	400	1188 Btu/ton-mile
10 million tons	400	467 Btu/ton-mile
10 million tons	465	458 Btu/ton-mile
25 million tons	465	227 Btu/ton-mile

As can be seen, the larger the capacity and the longer the trip, the more energy efficient is the operation.

This same scaling effect should be expected to apply to unit trains. Data from the CBO report listed below indicate that this is indeed the case.

1264 miles (111 cars)......................	256 Btu/ton-mile
414 miles (91 cars).......................	412 Btu/ton-mile

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[2] Oner Yucel, Interim Report on a Preliminary Study of "Coal Slurry Pipelines in Virginia," Blacksburg, VA, Jan. 6, 1982.

In the CBO study these figures led to 370 Btu per ton-mile being accepted for the unit train as an appropriate average energy use. Our study suggests, for comparable distances and comparable carrying capacities, that 600 Btu per ton-mile is a more appropriate energy value for coal slurry pipelines than the 1000 Btu per ton-mile chosen by CBO.

COMPARISON BETWEEN UNIT TRAINS AND SLURRY PIPELINES

If 600 Btu per ton-mile is chosen as an average propulsion energy rate for the slurry pipeline instead of the less appropriate value used in the CBO study, then the conclusion one reaches in a comparison between slurry pipelines and unit trains is quite different. The specific comparisons using the same categories as the CBO study are as follows:

	Coal Slurry Pipeline	Unit Trains
Propulsion	600 Btu/ton-mile	370 Btu/ton-mile
Vehicles	0 Btu/ton-mile	60 Btu/ton-mile
Construction	50 Btu/ton-mile	100 Btu/ton-mile
Maintenance	100 Btu/ton-mile	60 Btu/ton-mile
Circuity Factor	(1.10)	(1.51)
Total Energy/ton-mile	825 Btu/ton-mile	890 Btu/ton-mile

Given the uncertainties represented by all of these estimates, the two total energy per ton-mile values should not be regarded as significantly different.

This more realistic comparison leads to a much different conclusion than the CBO study. Indeed, it must be argued that when a comparison is made between strictly equivalent options of slurry pipelines and unit trains, it is not possible at this time to distinguish between these options on an energy basis alone.

The implication of our study and analysis of the data is that energy efficiency is not a determining factor in the decision between moving coal by rail or slurry pipeline. Other criteria such as capitol, access, politics, and profitability remain the major factors which will determine the choice between slurry pipelines and unit trains for moving coal.

Senator **Wallop**. If Congressman Craig will indulge me here, Senator Hatch would like to make his introduction of Mr. Edward Clyde. Mr. Clyde will testify in a panel later on, but the introduction will be given now.

STATEMENT OF HON. ORRIN G. HATCH, A U.S. SENATOR FROM THE STATE OF UTAH

Senator **Hatch**. Thank you so much, Mr. Chairman and my colleague here. I am really happy to have this opportunity today to have the honor of introducing Mr. Edward Clyde who will be one of the later witnesses on your agenda today here in this section as a witness on S. 1844, the Coal Distribution and Utilization Act of 1981.

Mr. Clyde is recognized as an outstanding authority and widely published author on water law in the Rocky Mountain region. He has provided distinguished representation in field cases for a period of many years. He is currently involved with the Central Utah Project out there, one of the most important projects in the history of the State.

He was legal counsel to the State of Utah for the negotiation of the upper Colorado River compact and taught water law in the University of Utah for 10 years. He has also made a significant contribution in the field of higher education not only as a professor but served on the Utah State Board of Regents and the Institutional Counsel for many years.

He currently sits on the board of directors for the University of Utah Medical Center, so I am both pleased and honored to introduce such a distinguished witness to you today. I trust that his testimony addressing the major water issues and the concerns obtained in S. 1844 will be of great value and substance to this committee. I just plain don't believe that we can bring a more recognized or eminent water expert to the committee than Mr. Clyde. He is a personal friend, a great lawyer. He is a great teacher in my opinion. He can answer your questions and will add a great deal to our total understanding of the problems and the pluses and minuses of this piece of legislation which is so important, so I thank you for allowing me to be taken out of turn, and Congressman Craig, I really appreciate your allowing me to do this.

Senator **Wallop**. Thank you very much, Senator. Our next witness is Congressman Craig from Idaho.

The **Chairman**. He's my Congressman.

Senator **Wallop**. He's a hell of a snowmobiler, too.

STATEMENT OF HON. LARRY E. CRAIG, A U.S. REPRESENTATIVE FROM THE STATE OF IDAHO

Mr. **Craig**. Thank you very much, Mr. Chairman, and my senior Senator, Mr. Chairman. He is also my Senator. We shared a unique relationship a few years ago when I served in the State Senate and he served in the U.S. House. I was his Senator and he was my Representative. Those circumstances have been changed a little bit.

It is my pleasure to be before the committee, and I thank you for the opportunity to testify on this legislation, Mr. Chairman. I would hope that the full text of my testimony could be entered into the record.

Senator WALLOP. It will be.

Mr. CRAIG. I would also like to enter in two documents. One is a letter to Mr. McKeever, who is the president of Western Mining Operations of W. R. Grace & Co., from Undersecretary Don Hodel, and accompanying materials with that letter.

Another one is from the United States, the U.S. Synfuels Corporation, a confidential report to, the front letter is from an F. J. Becraft, vice president of Gas Supply for the Northwest Pipeline Corp. I think these two documents are important as it relates to the testimony on this legislation as to the kind of impact that I think was alluded to just a few minutes ago when we talked about eminent domain, and the important role that that would have as it relates to the role of private industry and its ability to then go forth with the concept of a coal slurry pipeline.

It has been said for some time, and my testimony will prove that out, by the coal slurry people that because of the high efficiency and technology of this type of construction that certainly they would not, they could on their own construct if they had the eminent domain—we will find out that once granted eminent domain under potentially S. 1844, that they immediately come rushing to the Federal Government for major forms of Federal dollar support so that they can go on with the business of private enterprise. I thought that unique and interesting, and it would be valuable to show up in the record.

As you know, we have legislation in the House that proposes similar effort in the area of coal slurry with a considerably different approach. I had opposed that bill in the House Interstate Commerce Committee, and am here today to discuss certain provisions of S. 1844, for all of these bills seek to promote innovation and efficiency in coal transportation.

Three fundamental problems I think, Mr. Chairman, persist which are beyond the powers of this Congress to amend or to cure.

The first is that traditional States rights in the allocation and use of water are jeopardized despite very sincere attempts by sponsors of legislation to safeguard historic practices.

Second, in the same fashion, State and local laws will be overridden when they obstruct to any extent the construction and/or operation of these pipelines, and finally, rather than facilitating the construction and operation of these pipelines, this legislation will simply shift legal disputes from local jurisdictions to the Federal district courts.

At the heart of this legislation is an attempt by private industry to obtain the special privilege of Federal eminent domain, an awesome power which should not be granted lightly. As a matter of principle, Congress has been reluctant to place such power in the hands of private citizens for use against their neighbors.

In granting these privileges of Federal eminent domain, Congress would establish a Federal mandate for coal slurry pipelines which is not available to their competitors nor to most private businesses. Along with the right to condemn private property, coal slurry pipelines would inherit a unique ability to preempt any State and local law which might impede their activities. This unique status flows from article 1, section 8 of the U.S. Constitution which places limitations on interference by State and local governments in matters of interstate commerce.

It is from that so-called commerce clause of the Constitution that Congress itself derives the ability to grant the right of Federal eminent domain. That right has been linked to the ability to preempt State and local laws by a series of Federal court interpretations of the commerce clause. This committee received testimony in its hearing last month which fully described the evolution in Federal courts of the presumption that Federal law totally preempts State law in these circumstances. One case in particular, Mr. Chairman, that I felt was worthy of note was the *First Iowa Hydroelectric Cooperative* v. *The Federal Power Commission,* 328 U.S. 152 in 1946, which parallels the coal slurry situation.

In *First Iowa,* the Supreme Court overturned the statutory language with which Congress had attempted to safeguard State water law. Specific State water laws were found by the Supreme Court to be in conflict with Federal regulations contained in the Federal Power Act. The Court preempted those State water laws because they, and I quote, "* * * might well block Federal license." The committee needs to take, I think, a careful look at the language with which the earlier Congress attempted to safeguard water law. It said:

> Nothing contained in this chapter shall be construed as affecting or intending to affect or in any way to interfere with the law of other respective states relating to control, appropriation, use or distribution or water used in irrigation or for municipal or other uses or any vested right acquired therein.

The intent of the earlier Congress is quite clear. I repeat, they did not, they did not wish to interfere, as you do not wish to interfere with the traditional right of the States to control the allocation and use of water, but it didn't work, and the construction of their saving provision bears a frightening similarity to the language proposed in S. 1844, and I refer to section 6, subsection c, lines 11 through 14.

If *First Iowa,* was a blow to States rights, an even bigger threat is pending today before the Supreme Court. The Court has taken an appeal of *Joy Sporhase and Delmar Moss* v. *The State of Nebraska,* case 81-613. Like some 13 other Western and Midwestern States, Nebraska law regulates the diversion of water outside State boundaries. Sporhase argues that Nebraska's export limitation is an unconstitutional burden on the flow of interstate commerce.

Now for the first time I used the words "interstate commerce" linked with water. Should the Court rely upon a case like *First Iowa* as a precedent, water will be declared to be an article of commerce and the ability to States to regulate water availability will be sharply curtailed. Congress would be foolhardy to secondguess the Court and legislate water language before the outcome of the *Sporhase* case is known.

No. 1, clearly the interpretation by Federal courts of the commerce clause presents this committee in my opinion with an insurmountable problem in protecting State water rights. Those are not the only problems in the overall water debate, Mr. Chairman. The legislation actually creates new water problems which have apparently not been contemplated by the bill's sponsors. It fails understandably to anticipate all circumstances which might arise in the construction of coal slurry pipelines. Language in section 6 of S. 1844 attempts to broadly define the types of water laws which are to be protected from Federal preemption. Problems arise beginning with the definition of words like "use."

We don't really know how the Federal courts might choose to define use since the use of a renewable resource differs substantially from the resource, from those resources which are consumed by use, nor do we know whether this language anticipates all categories of State water law which might be challenged.

S. 1844 contains an ironic twist in that to the extent that it might fail to safeguard specific categories of State law, that legal function then will remain available for exercise by Federal authorities, and unwittingly S. 1844 could hand over some traditional State water functions to the Federal Government. It is also not clear whether water statutes which States might enact in the future are safeguarded. As First Iowa demonstrates, once water enters into interstate commerce under the terms of this legislation a State has only a limited constitutional ability to interpret or alter that flow. Countless court decisions have prevented States from alteration of the terms of interstate projects.

While the legislation seeks to recognize State rights, it makes no distinction between States from which water originates and those downstream or at the pipeline terminal; 1844 may well create new water rights which result under the commerce clause, and I repeat under the commerce clause from the demands of terminal States that the pipeline continue to flow.

Similarly, disputes over a shared water source such as the Madison Aquifer or the Missouri River Basin become subject to an overriding question of burdening interstate commerce. It is difficult to contemplate what kind of rights might develop along the pipeline corridor as the project managers secure those water resources necessary for their projects. The legislation has an equally burdensome impact on other categories of State and local law. Federal preemption is by no means limited to water resources. Any statute which creates procedural roadblocks to the development of coal slurry pipelines will be subject to preemption once the right of Federal eminent domain is granted. State laws subject to preemption include management of lands and natural resources, pollution standards, zoning, and safety, as well as State laws governing such activities as pipeline design, installation, and inspection, emergency plans, testing, construction, operation, and maintenance.

Waiving these State and local obligations will not measurably facilitate pipeline construction or operation. It will simply move legal disputes away from local jurisdictions into Federal district courts, and there citizens will not only face higher legal costs but the unique status conferred upon coal slurry pipeline promoters through Federal eminent domain will put those States and their citizens at a distinct legal disadvantage.

I have also been warned by members of the legal community that those proceedings in Federal district courts will likely result in the creation of new Federal common law. Essentially S. 1844 attempts to require that Federal district judges weigh the merits of the case based on State law. Undoubtedly those decisions will necessarily stray farther and farther from the clear distinctions normally made between State and Federal judges. It has become increasingly clear to me that more is at stake here than whether to allow one industry the special privilege of condemning an other's private land. The right of Federal eminent domain has far-reaching powers which perhaps were not entirely anticipated by the sponsors of this legislation.

First Iowa and other cases have demonstrated that Congress cannot adequately protect against the Federal preemption I have described. I know that many of us are not convinced either that the coal slurry pipeline industry must have Federal eminent domain to get into business. If you weigh the benefits of eminent domain to the pipeline industry against the grave threat of States rights which accompanies that special privilege, it is difficult to justify the support for the pending legislation.

I would like to raise one further point before I conclude, Mr. Chairman. For some 20 years coal slurry pipeline promoters have been testifying before Congress about the virtues of innovation, efficiency, and competition in the private sector. They have made much of the fact that no Federal dollars would be needed or sought for development of various pipeline projects. This just simply is not true, Mr. Chairman. Hard upon the heels of their request for Federal eminent domain rights are at least two efforts by the industry at this time to obtain Federal funding, and I have asked that those items be entered into the record.

One is the application to the U.S. Synfuels Corporation for Federal funding of the northwest integrated coal energy system between the Powder River basin and Oregon. A copy of that application is attached to my testimony. The second comes in the form of legislation now pending before this committee, S. 2202, amending the Colorado River Basin Salinity Control Act which proposes to make the W. R. & Grace Co. Aquatrain pipeline eligible for Federal funding. I have for the committee filed those copies along with correspondence from the U.S. Department of Interior indicating its intentions to commit Federal resources to those projects.

Mr. Chairman, Aquatrain is a project which proposes to put coal in plastic baggies and float them through a pipeline from Colorado to California. It is the kind of technological breakthrough that in my opinion keeps taxpaying audiences in Idaho rolling in the aisles.

It appears that the right of Federal eminent domain isn't really going to be enough for the pipeline promoters. Their hands are now in the Federal trough and the bureaucracy, interestingly enough, Mr. Chairman, is responding.

Thank you very much for allowing me to testify.

Senator **Wallop**. Thank you very much, Mr. Congressman.

[The prepared statement of Mr. Craig follows:]

STATEMENT BEFORE THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES ON S. 1844, TO FACILITATE THE NATIONAL DISTRIBUTION AND UTILIZATION OF COAL, JUNE 8, 1982, WASHINGTON, D.C.

MR. CHAIRMAN, THANK YOU FOR THIS OPPORTUNITY TO TESTIFY ON THE COAL SLURRY PIPELINE LEGISLATION PENDING BEFORE YOUR COMMITTEE.

I KNOW THAT MEMBERS OF THE SENATE ENERGY COMMITTEE ARE FAMILIAR WITH SIMILAR LEGISLATION UNDER CONSIDERATION IN THE HOUSE OF REPRESENTATIVES. ONE VERSION OF THESE VARIOUS COAL SLURRY PROPOSALS WAS REPORTED LATE LAST YEAR FROM THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS, ON WHICH I SERVE. IT PASSED WITH A MARGIN OF ONE VOTE, AND DID SO WITHOUT MY SUPPORT.

FOR ALL THAT THESE BILLS SEEK TO PROMOTE INNOVATION AND EFFICIENCY IN COAL TRANSPORTATION, THREE FUNDAMENTAL PROBLEMS PERSIST WHICH ARE BEYOND THE POWERS OF THIS CONGRESS TO AMEND AND CURE:

- TRADITIONAL STATES' RIGHTS IN THE ALLOCATION AND USE OF WATER ARE JEOPARDIZED, DESPITE VERY SINCERE ATTEMPTS BY SPONSORS OF THE LEGISLATION TO SAFEGUARD HISTORICAL PRACTICES;
- IN THE SAME FASHION, STATE AND LOCAL LAWS WILL BE OVERRIDDEN WHEN THEY OBSTRUCT, TO ANY EXTENT, THE CONSTRUCTION AND OPERATION OF THESE PIPELINES; AND
- FINALLY, RATHER THAN FACILITATING THE CONSTRUCTION AND OPERATION OF THESE PIPELINES, THE LEGISLATION WILL SIMPLY SHIFT LEGAL DISPUTES FROM LOCAL JURISDICTIONS INTO FEDERAL DISTRICT COURT.

AT THE HEART OF THIS LEGISLATION IS AN ATTEMPT BY PRIVATE INDUSTRY TO OBTAIN THE SPECIAL PRIVILEGE OF FEDERAL EMINENT DOMAIN -- AN AWESOME POWER WHICH SHOULD NOT BE GRANTED LIGHTLY. AS A MATTER OF PRINCIPLE, CONGRESS HAS BEEN RELUCTANT TO PLACE SUCH POWER IN THE HANDS OF PRIVATE CITIZENS FOR USE AGAINST THEIR NEIGHBORS.

IN GRANTING THIS PRIVILEGE OF FEDERAL EMINENT DOMAIN, CONGRESS WOULD ESTABLISH A FEDERAL MANDATE FOR COAL SLURRY PIPELINES WHICH IS NOT AVAILABLE

TO THEIR COMPETITORS NOR TO MOST PRIVATE BUSINESSES. ALONG WITH THE RIGHT TO CONDEMN PRIVATE PROPERTY, COAL SLURRY PIPELINES WOULD INHERIT A UNIQUE ABILITY TO PREEMPT ANY STATE AND LOCAL LAWS WHICH MIGHT IMPEDE THEIR ACTIVITIES.

THIS UNIQUE STATUS FLOWS FROM ARTICLE 1, SECTION 8 OF THE U.S. CONSTITUTION, WHICH PLACED LIMITATIONS ON INTERFERENCE BY STATE AND LOCAL GOVERNMENTS IN MATTERS OF INTERSTATE COMMERCE. IT IS FROM THAT SO-CALLED COMMERCE CLAUSE OF THE CONSTITUTION THAT CONGRESS, ITSELF, DERIVES THE ABILITY TO GRANT THE RIGHT OF FEDERAL EMINENT DOMAIN. THAT RIGHT HAS BEEN LINKED TO AN ABILITY TO PREEMPT STATE AND LOCAL LAWS BY A SERIES OF FEDERAL COURT INTERPRETATIONS OF THE COMMERCE CLAUSE.

THIS COMMITTEE RECEIVED TESTIMONY IN ITS HEARING LAST MONTH WHICH FULLY DESCRIBES THE EVOLUTION IN FEDERAL COURTS OF THE PRESUMPTION THAT FEDERAL LAW TOTALLY PREEMPTS STATE LAW IN THESE CIRCUMSTANCES.

ONE CASE IN PARTICULAR, FIRST IOWA HYDRO-ELECTRIC COOPERATIVE V. FEDERAL POWER COMMISSION, 328 U.S. 152 (1946), PARALLELS THE COAL SLURRY SITUATION. IN FIRST IOWA, THE SUPREME COURT OVERTURNED STATUTORY LANGUAGE WITH WHICH CONGRESS HAD ATTEMPTED TO SAFEGUARD STATE WATER LAW. SPECIFIC STATE WATER LAWS WERE FOUND BY THE SUPREME COURT TO BE IN CONFLICT WITH FEDERAL REQUIREMENTS CONTAINED IN THE FEDERAL POWER ACT. THE COURT PREEMPTED THOSE STATE WATER LAWS BECAUSE THEY "MIGHT WELL BLOCK FEDERAL LICENSE."

THE COMMITTEE NEEDS TO TAKE A CAREFUL LOOK AT THE LANGUAGE WITH WHICH AN EARLIER CONGRESS ATTEMPTED TO SAFEGUARD STATE WATER LAW. IT SAID:

> NOTHING CONTAINED IN THIS CHAPTER SHALL BE CONSTRUED AS AFFECTING OR INTENDING TO AFFECT OR IN ANY WAY TO INTERFERE WITH THE LAWS OF THE RESPECTIVE STATES RELATING TO THE CONTROL, APPROPRIATION, USE OR DISTRIBUTION OF WATER USED IN IRRIGATION OR FOR MUNICIPAL OR OTHER USES, OR ANY VESTED RIGHT ACQUIRED THEREIN.

THE INTENT OF THAT EARLIER CONGRESS IS QUITE CLEAR. THEY DID NOT WISH TO INTERFERE WITH THE TRADITIONAL RIGHTS OF THE STATES TO CONTROL THE ALLOCATION AND USE OF WATER. BUT IT DIDN'T WORK, AND THE CONSTRUCTION OF THEIR SAVING PROVISION BEARS A FRIGHTENING SIMILARITY TO LANGUAGE PROPOSED FOR S. 1844.

IF _FIRST IOWA_ WAS A BLOW TO STATES' RIGHTS, AN EVEN BIGGER THREAT IS PENDING TODAY BEFORE THE SUPREME COURT. THE COURT HAS TAKEN AN APPEAL OF _JOY SPORHASE AND DELMAR MOSS V. STATE OF NEBRASKA_, CASE NO. 81-613.

LIKE SOME THIRTEEN OTHER WESTERN AND MIDWESTERN STATES, NEBRASKA LAW REGULATES THE DIVERSION OF WATER OUTSIDE STATE BOUNDARIES. _SPORHASE_ ARGUES THAT NEBRASKA'S EXPORT LIMITATION IS AN UNCONSTITUTIONAL BURDEN ON THE FLOW OF INTERSTATE COMMERCE. SHOULD THE COURT RELY UPON CASES LIKE _FIRST IOWA_ AS A PRECEDENT, WATER WILL BE DECLARED TO BE AN ARTICLE OF COMMERCE, AND THE ABILITY TO STATES TO REGULATE WATER AVAILABILITY WILL BE SHARPLY CURTAILED.

CONGRESS WOULD BE FOOLHARDY TO SECOND-GUESS THE COURT AND LEGISLATE WATER LANGUAGE BEFORE THE OUTCOME OF THE _SPORHASE_ CASE IS KNOWN.

CLEARLY, THE INTERPRETATION BY FEDERAL COURTS OF THE COMMERCE CLAUSE PRESENTS THIS COMMITTEE WITH INSURMOUNTABLE PROBLEMS IN PROTECTING STATES' WATER RIGHTS. THOSE ARE NOT THE ONLY PROBLEMS IN THE WATER DEBATE. THE LEGISLATION ACTUALLY CREATES NEW WATER PROBLEMS WHICH HAVE APPARENTLY NOT BEEN COMTEMPLATED BY THE BILL'S SPONSORS. IT FAILS, UNDERSTANDABLY, TO ANTICIPATE ALL CIRCUMSTANCES WHICH MIGHT ARISE IN THE CONSTRUCTION OF COAL SLURRY PIPELINES.

LANGUAGE IN SECTION 6 OF S. 1844 ATTEMPTS TO BROADLY DEFINE THE TYPES OF STATE WATER LAWS WHICH ARE TO BE PROTECTED FROM FEDERAL PREEMPTION. PROBLEMS ARISE BEGINNING WITH THE DEFINITIONS OF WORDS LIKE "USE." WE DON'T REALLY KNOW HOW A FEDERAL COURT MIGHT CHOOSE TO DEFINE "USE," SINCE THE USE

OF A RENEWABLE RESOURCE DIFFERS SUBSTANTIALLY FROM THOSE RESOURCES WHICH ARE CONSUMED BY "USE."

NOR DO WE KNOW WHETHER THIS LANGUAGE ANTICIPATES ALL CATEGORIES OF STATE WATER LAW WHICH MIGHT BE CHALLENGED. S. 1844 CONTAINS AN IRONIC TWIST IN THAT TO THE EXTENT IT MIGHT FAIL TO SAFEGUARD SPECIFIC CATEGORIES OF STATE LAW, THAT LEGAL FUNCTION THEM REMAINS AVAILABLE FOR EXERCISE BY FEDERAL AUTHORITIES. UNWITTINGLY, S. 1844 COULD HAND OVER SOME TRADITIONAL STATE WATER FUNCTIONS TO THE FEDERAL GOVERNMENT.

IT IS ALSO NOT CLEAR WHETHER THE WATER STATUTES WHICH STATES MIGHT ENACT IN THE FUTURE ARE SAFEGUARDED. AS *FIRST IOWA* DEMONSTRATED, ONCE WATER ENTERS INTO INTERSTATE COMMERCE UNDER THE TERMS OF THIS LEGISLATION, A STATE HAS ONLY A LIMITED CONSTITUTIONAL ABILITY TO INTERRUPT OR ALTER THAT FLOW. COUNTLESS COURT DECISIONS HAVE PREVENTED THE STATES FROM ALTERING THE TERMS OF INTERSTATE PROJECTS.

WHILE THE LEGISLATION SEEKS TO RECOGNIZE STATES' RIGHTS, IT MAKES NO DISTINCTION BETWEEN STATES FROM WHICH WATER ORIGINATES AND THOSE DOWNSTREAM OR AT THE PIPELINE TERMINAL. S. 1844 MAY WELL CREATE NEW WATER RIGHTS WHICH RESULT UNDER THE COMMERCE CLAUSE FORM THE DEMANDS OF TERMINAL STATES THAT THE PIPELINE CONTINUE TO FLOW. SIMILARILY, DISPUTES OVER A SHARED WATER SOURCE, SUCH AS THE MADISON ACQUIFER OR THE MISSOURI RIVER BASIN, BECOME SUBJECT TO AN OVERRIDING QUESTION OF BURDENING INTERSTATE COMMERCE. IT'S DIFFICULT TO CONTEMPLATE WHAT KINDS OF "RIGHTS" MIGHT DEVELOP ALONG THE PIPELINE CORRIDOR AS THE PROJECT MANAGERS SECURE THOSE WATER RESOURCES NECESSARY TO THEIR OPERATIONS.

THE LEGISLATION HAS AN EQUALLY BURDENSOME IMPACT ON OTHER CATEGORIES OF STATE AND LOCAL LAW. FEDERAL PREEMPTION IS BY NO MEANS LIMITED TO WATER RESOURCES. ANY STATE STATUTES WHICH CREATE PROCEDURAL ROADBLOCKS TO THE DEVELOPMENT OF COAL SLURRY PIPELINES WILL BE SUBJECT TO PREEMPTION ONCE THE

RIGHT OF FEDERAL EMINENT DOMAIN IS GRANTED. STATES LAWS SUBJECT TO PREEMPTION INCLUDE MANAGEMENT OF LANDS AND NATURAL RESOURCES, POLLUTION STANDARDS, ZONING, AND SAFETY, AS WELL AS STATE LAWS GOVERNING SUCH ACTIVITIES AS PIPELINE DESIGN, INSTALLATION, INSPECTION, EMERGENCY PLANS, TESTING, CONSTRUCTION, OPERATION, AND MAINTENANCE.

WAIVING THESE STATE AND LOCAL OBLIGATIONS WILL NOT MEASURABLY FACILITATE PIPELINE CONSTRUCTION AND OPERATION. IT WILL SIMPLY MOVE LEGAL DISPUTES AWAY FROM LOCAL JURISDICTIONS INTO FEDERAL DISTRICT COURTS. STATES AND THEIR CITIZENS WILL NOT ONLY FACE HIGHER LEGAL COSTS, BUT THE UNIQUE STATUS CONFERRED UPON COAL SLURRY PIPELINE PROMOTERS THROUGH FEDERAL EMINENT DOMAIN WILL PUT THOSE STATES AND THEIR CITIZENS AT A DISTINCT LEGAL DISADVANTAGE.

I HAVE ALSO BEEN WARNED BY MEMBERS OF THE LEGAL COMMUNITY THAT THOSE PROCEEDINGS IN FEDERAL DISTRICT COURTS WILL LIKELY RESULT IN THE CREATION OF NEW FEDERAL COMMON LAW. ESSENTIALLY, S. 1844 ATTEMPTS TO REQUIRE THAT FEDERAL DISTRICT JUDGES WEIGH THE MERITS OF A CASE BASED ON STATE LAW. UNDOUBTEDLY, THOSE DECISIONS WILL NECESSARILY STRAY FURTHER AND FURTHER FROM THE CLEAR DISTINCTIONS NORMALLY MADE BETWEEN STATE AND FEDERAL FUNCTIONS.

IT HAS BECOME INCREASINGLY CLEAR TO ME THAT MORE IS AT STAKE HERE THAN WHETHER TO ALLOW ONE INDUSTRY THE SPECIAL PRIVILEGE OF CONDEMNING OTHERS' PRIVATE LANDS. THE RIGHT OF FEDERAL EMINENT DOMAIN HAS FAR-REACHING POWERS WHICH PERHAPS WERE NOT ENTIRELY ANTICIPATED BY SPONSORS OF THE LEGISLATION.

FIRST IOWA AND OTHER CASES HAVE DEMONSTRATED THAT CONGRESS CANNOT ADEQUATELY PROTECT AGAINST THE FEDERAL PREEMPTION I HAVE DESCRIBED. I KNOW THAT MANY OF US ARE NOT CONVINCED, EITHER, THAT THE COAL SLURRY PIPELINE INDUSTRY MUST HAVE FEDERAL EMINENT DOMAIN TO GET INTO BUSINESS. IF YOU WEIGH THE BENEFITS OF EMINENT DOMAIN TO THE PIPELINE INDUSTRY AGAINST THE GRAVE THREAT TO STATES' RIGHTS, WHICH ACCOMPANIES THAT SPECIAL PRIVILEGE, IT'S DIFFICULT TO JUSTIFY SUPPORT FOR THE PENDING LEGISLATION.

I WOULD LIKE TO RAISE ONE FURTHER POINT WITH THIS COMMITTEE BEFORE I CONCLUDE.

FOR SOME 20 YEARS, COAL SLURRY PIPELINE PROMOTERS HAVE BEEN TESTIFYING BEFORE CONGRESS ABOUT THE VIRTUES OF INNOVATION, EFFICIENCY, AND COMPETITION IN THE PRIVATE SECTOR. THEY HAVE MADE MUCH OF THE FACT THAT NO FEDERAL DOLLARS WOULD BE NEEDED OR SOUGHT FOR DEVELOPMENT OF VARIOUS PIPELINE PROJECTS.

THIS IS JUST SIMPLY NOT TRUE. HARD UPON THE HEELS OF THEIR REQUEST FOR FEDERAL EMINENT DOMAIN RIGHTS ARE AT LEAST TWO EFFORTS BY THE INDUSTRY TO OBTAIN FEDERAL FUNDING.

ONE IS AN APPLICATION TO THE U.S. SYNFUELS CORPORATION FOR FEDERAL FUNDING OF THE NORTHWEST INTEGRATED COAL ENERGY SYSTEM (NICES) BETWEEN THE POWDER RIVER BASIN AND OREGON. A COPY OF THAT APPLICATION IS ATTACHED TO MY TESTIMONY.

THE SECOND COMES IN THE FORM OF LEGISLATION NOW PENDING BEFORE THIS COMMITTEE. S. 2202 AMENDING THE COLORADO RIVER BASIN SALINITY CONTROL ACT PROPOSES TO MAKE W.R. GRACE & CO.'S AQUATRAIN PIPELINE ELIGIBLE FOR FEDERAL FUNDING. I HAVE FOR THE COMMITTEE FILED A COPY OF THAT LEGISLATION, ALONG WITH CORRESPONDENCE FROM THE U.S. DEPARTMENT OF THE INTERIOR INDICATING ITS INTENTION TO COMMIT FEDERAL RESOURCES TO THE PROJECT.

AQUATRAIN IS THE PROJECT WHICH PROPOSES TO PUT COAL INTO PLASTIC BAGGIES AND FLOAT THEM THROUGH A PIPELINE FROM COLORADO TO CALIFORNIA. IT'S THE KIND OF TECHNOLOGICAL BREAKTHROUGH THAT KEEPS TAX-PAYING AUDIENCES IN IDAHO ROLLING IN THE AISLES.

IT APPEARS THAT THE RIGHT OF FEDERAL EMINENT DOMAIN ISN'T REALLY GOING TO BE ENOUGH FOR THE PIPELINE PROMOTERS. THEIR HANDS ARE NOW IN THE FEDERAL TROUGH, AND THE BUREAUCRACY IS RESPONDING.

THANK YOU, MR. CHAIRMAN.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

APR 22 1982

Mr. Ira E. McKeever, Jr.
President, Western Mining Operations
W. R. Grace & Co.
Stapleton Plaza
3333 Quebec Street, Suite 8800
Denver, CO 80207

Dear Mr. McKeever:

Representatives of the Department of the Interior enjoyed meeting with you and other representatives of the W. R. Grace & Co. on March 26, 1982. The AQUATRAIN concept for using saline water developed by the Colorado River Water Quality Improvement Program as the transport media for a coal capsule pipeline appears to offer significant potential from a Federal perspective.

The Department of the Interior is prepared to work with the Colorado River Basin States, W. R. Grace & Co., and other public and private interests in the initial phase of this undertaking. That initial phase will include development of a plan of study and arrangements for Federal/non-Federal financing of feasibility and environmental analyses. In that regard, I am asking the Bureau of Reclamation to take the lead role in these activities, utilizing the capabilities of the Bureau of Land Management and the Office of the Solicitor as appropriate. Pending appointment of a team leader from Reclamation, please continue to work with Mr. Michael J. Clinton, Chief, Colorado River Water Quality Office, Bureau of Reclamation, Denver, Colorado. Utilizing existing authorities, available personnel, and presently budgeted funds, the Department of the Interior will take the following actions.

- Completion of an appraisal level-study of coal transport systems and alternatives (now underway).

- Establish and fund a team of Interior Department specialists to assist in program execution.

- Assist W. R. Grace & Co. and the Colorado River Basin Salinity Control Forum in seeking the participation of coal users (utilities, foreign and domestic), transportation companies, coal suppliers, and other private interests. In this regard, Reclamation will publish an official notice of investigation seeking such participation.

Although enabling legislation (S. 2202) has been introduced, passage will be necessary for us to participate in feasibility studies and possible construction. Assuming that enabling legislation is enacted and necessary resources of personnel and funding are available, the Department of the Interior is prepared to support the endeavor in the following ways:

- Act as contracting officer for necessary feasibility and environmental studies (Federal financial participation in these studies to be a minor part) as determined prior to study initiation.
- Participate in project financing and implementation to the extent that the Federal interest can be supported.

We understand that W. R. Grace & Co. will assume the lead role for coal transport technology development and formation of a consortium of private sector interests to participate in the venture and to finance the non-Federal share of the costs. We also understand that the Colorado River Basin Salinity Control Forum and the respective States will assume the lead role relating to water rights issues and other related concepts that are matters of State rather than Federal jurisdiction. Continued State participation is essential because of repayment requirements in the Colorado River Basin Salinity Control Act (Public Law 93-320).

In summary, we in the Department of the Interior are fully supportive of the AQUATRAIN proposal and feel that such joint ventures between industry and Government may prove to be mutually beneficial. We look forward to continuing to work with W. R. Grace & Co. and others to make beneficial use of the saline waters of the Colorado River.

Sincerely,

Donald Paul Hodel

UNDER SECRETARY

cc: Mr. Jack A. Barnett
Executive Director
Colorado River Basin Salinity Control Forum
220 South 200 East, Suite 320
Salt Lake City, UT

DEPARTMENT of the INTERIOR
news release

BUREAU OF RECLAMATION

Holloway (303) 234-4695
Gillespie (303) 234-4180

For Release April 26, 1982

INTERIOR AND W. R. GRACE & COMPANY TO STUDY USING COLORADO RIVER BASIN SALTY WATER TO TRANSPORT PLASTIC "BAGGIES" OF COAL

The Department of the Interior said today it will help W. R. Grace & Company and other interests determine the possibility of using unwanted salty waters from the Upper Colorado River Basin to transport plastic "baggies" of coal to the West Coast.

Donald Paul Hodel, Under Secretary of the Interior, said a proposal from W. R. Grace to explore the feasibility of an aquatrain -- a saline water pipeline carrying plastic capsules of dry, clean coal -- "appears to offer significant potential."

"If a technology using these concepts could be proven economically sound, it would help control the damaging salt content of the Colorado River, benefit the Nation and the 15 million users of the Colorado's water, and put an unwanted product -- saline water -- to good use," Hodel said.

Robert N. Broadbent, Commissioner of Reclamation, said the proposal evolved from a Reclamation report last September that suggested alternative uses of the Colorado River Basin's saline waters.

"The proposed aquatrain, using saline water as a medium, looks promising," Broadbent said. "It's the type of project -- a cooperative program among Federal, State, and industrial interests -- we look for."

In a letter to Ira E. McKeever, Jr., President of Grace's Western Mining Division, Hodel said Reclamation will take the lead Interior role in preparing for a feasibility study and will work with the Bureau of Land Management, Interior's legal staffs, and with other Federal, State, and industrial interests. Reclamation and Grace will contact utilities, transportation companies, and other coal development interests to develop a broader joint venture.

"That initial phase will include development of a plan of study and Federal/non-Federal financial arrangements for feasibility and environmental analyses of the proposal," Hodel said.

He said the Department of the Interior now has authority to prepare for feasibility studies and that pending legislation (S. 2202) would enable the agency to participate in the study.

(more)

In the project, W. R. Grace & Company will assume the lead role for developing the innovative coal transport technology and formation of a consortium of private interests for financing the non-Federal share, Hodel said. The Colorado River Basin Salinity Control Forum, composed of representatives appointed by the Governors of the seven Basin States (Arizona, California, Nevada, Utah, New Mexico, Colorado, and Wyoming), will address "water rights issues and other related concepts that are a matter of State rather than Federal jurisdiction," Hodel said.

The Grace proposal was presented to Hodel, Reclamation, and other Interior representatives during a meeting in Washington, D.C., on March 26. As proposed by Grace, the aquatrain would consist of a 36-inch pipeline stretching from near Axial, Colorado, to the California Pacific Coast, about 1,200 miles in distance. The burnable, plastic capsules 30 inches by 15 feet in size would carry between 3 and 4 tons of coal each. Up to 15 million tons of coal mined and cleaned in Colorado and Utah would feed the pipeline annually.

About 12,000 acre-feet of fresh water, owned by W. R. Grace & Company, would be used to transport the coal from Axial to near Rifle, Colorado. There the fresh water would be replaced by salt-laden water — about half the salinity of sea water — taken from Colorado's Glenwood and Dotsero Springs for the rest of the journey. The Glenwood and Dotsero Springs are major sources of saline water which feed into the Colorado River.

Grace said it believes the project would remove an estimated 250,000 tons of salt per year from the Colorado River and help control a major source of salt pollution.

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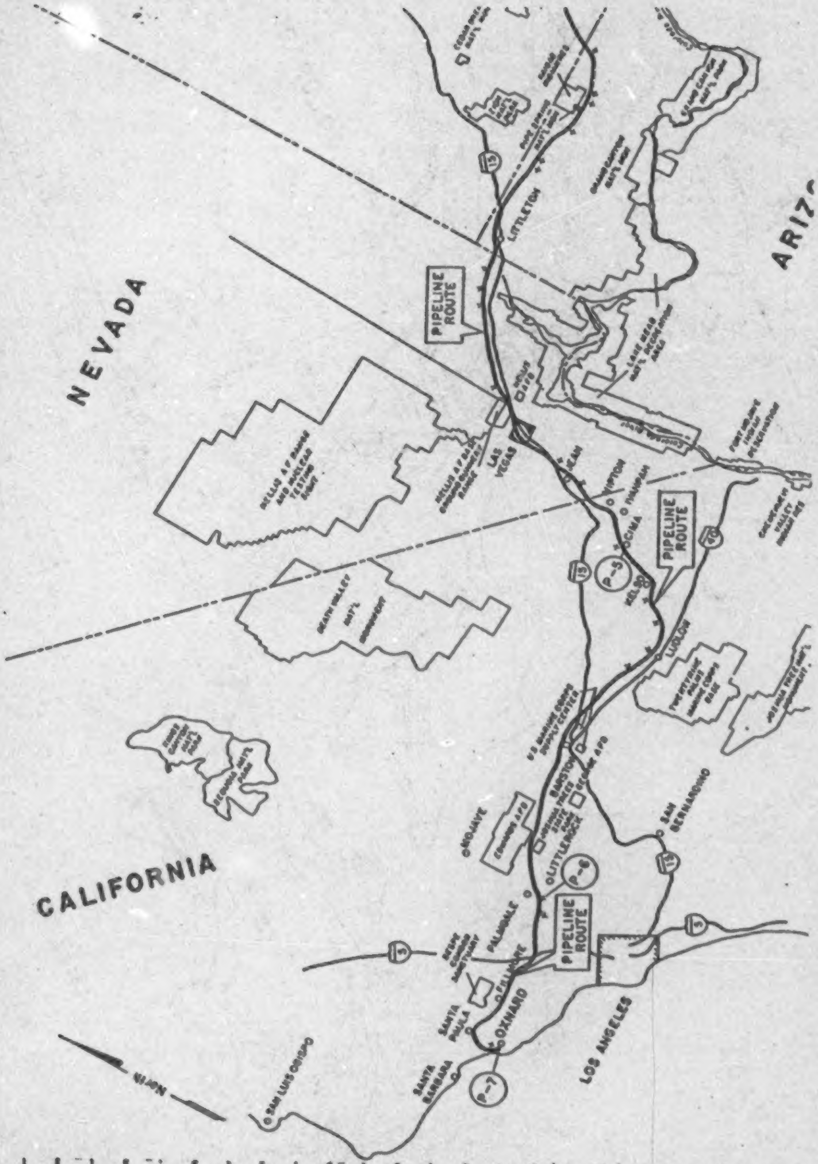
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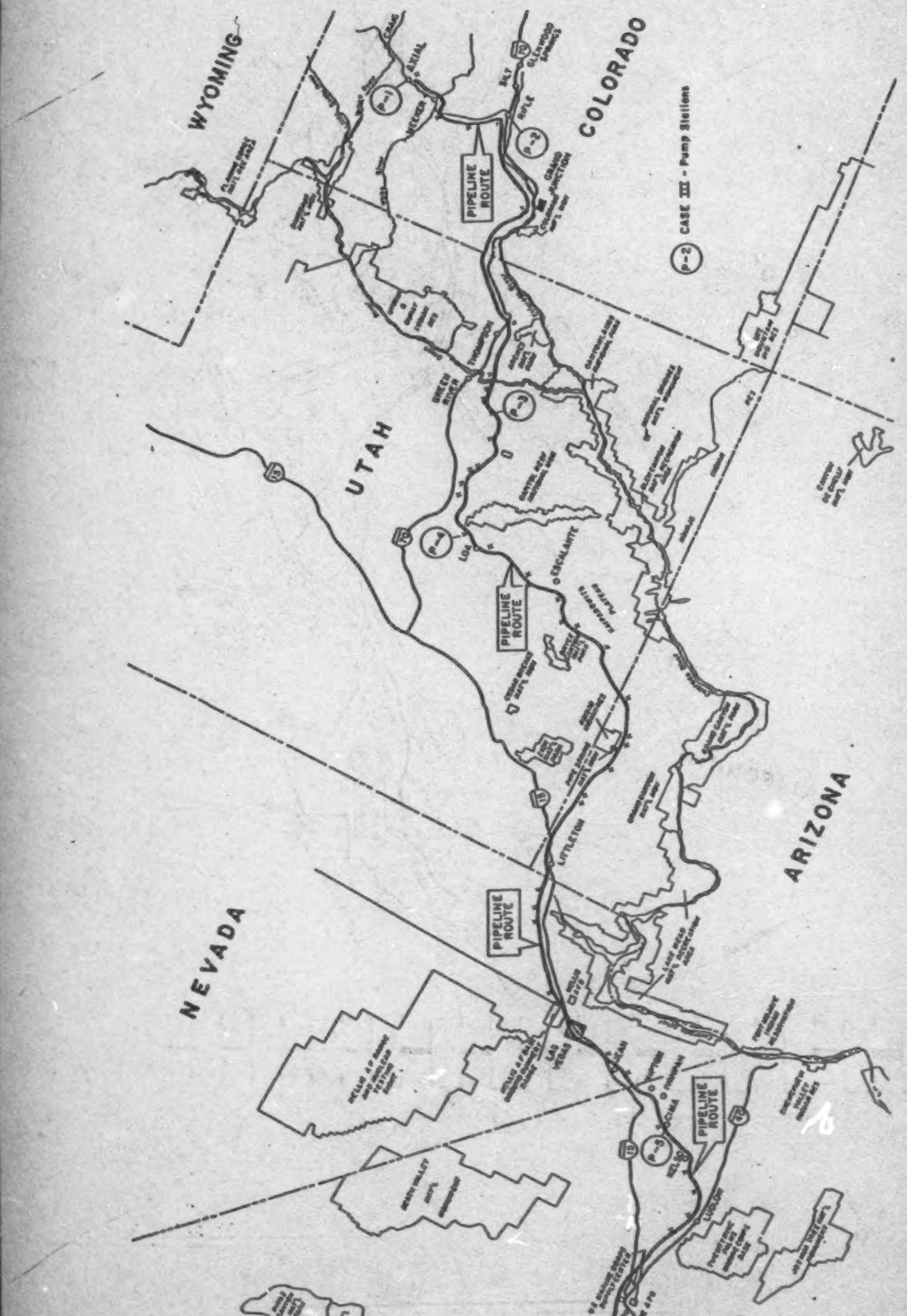
NELLIS A F RANGE
LAKE MEAD NAT'L RECREATION AREA
GRAND CANYON NAT'L PARK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CIMA
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KELSO
PIPELINE ROUTE
LUDLOW
BARSTOW
SAN BERNARDINO
P-2 CASE III - Pump Stations

Revised 11-24-81

CONCEPT PAPER

SUBJECT: A pipeline unique to the Colorado River drainage area for transporting coal contained in disposable plastic capsules and thus completely separated from the saline water medium used to obtain neutral buoyancy of the coal container.

The Salinity Control Forum has grappled for many years with the problems of excessive total dissolved solids in the Colorado River, and we in the coal industry have been struggling to remain competitive in the face of rapidly escalating rail rates. I would like to offer you an idea that we at W. R. Grace & Co. are working on that could partially solve both of these problems.

An unusual opportunity exists in the Colorado River basin for transporting coal via pipeline to the Pacific Coast and in the process disposing of some of the Colorado River's total dissolved solids problem. The project envisions the cooperation of Federal, State, local, public, and industrial entities to remove about 10% of the salts currently entering the Colorado River and to pass this saline water through a pipeline to the Pacific Ocean. We feel the capital investment for the pipeline could be obtained from private sources based on federal payments for removal of salts from the Colorado River and transportation fees for encapsulated coal to market.

A 36-inch diameter pipeline would be constructed from a point near Axial, Colorado, to a point yet to be ascertained on the California Pacific Coast, a distance of about 1,200 plus miles. Coal mined in Colorado and Utah would feed the pipeline with up to 20 million tons per year. Fresh water owned by

W. R. Grace & Co., about 12,000 acre feet per year, could be used to transport part of the coal from Axial to a point near Rifle, Colorado where it would be exchanged for water containing up to 14,000 milligrams per liter of total dissolved solids from the Glenwood/Dotsero Springs for transport to the Pacific Ocean.

The Bureau of Reclamation has been charged by federal law with the responsibility to reduce salt content of the Colorado River, as measured at the Imperial Dam in Arizona, to the 1972 level. This calls for 2.8 million tons of salt removal from the drainage system of the Colorado River by the year 2000. The proposed saline water/coal capsule pipeline project would remove an estimated 250,000 tons of salt per year of the required amount.

This pipeline would differ dramatically from a coal slurry pipeline. The coal would be crushed, cleaned, and dried at the mine. It would then be placed in a plastic capsule ("baggie"). The capsules containing the coal would have a specific gravity equal to the saline water which would transport them to the Pacific.

The process of transporting coal in plastic capsules was patented and has been researched by the Alberta Research Institute a few years ago. The capsules that were used to carry the coal after emptying could be incinerated at the final destination point and their hydrocarbon heat content recovered. Since the coal is cleaned, crushed, and dried before shipment, a more uniform and higher grade coal could be delivered direct to the power plant than through existing transportation means. Moisture, sulphur, and ash content would be reduced prior to encapsulation and the coal stabilized in the capsule so that spontaneous combustion could not occur during transport and storage. Significant savings could be realized in the design of new power plants versus the use of coal transported in a saline water slurry. In addition, the benefits of removing highly saline water from the Colorado River basin could be substantial.

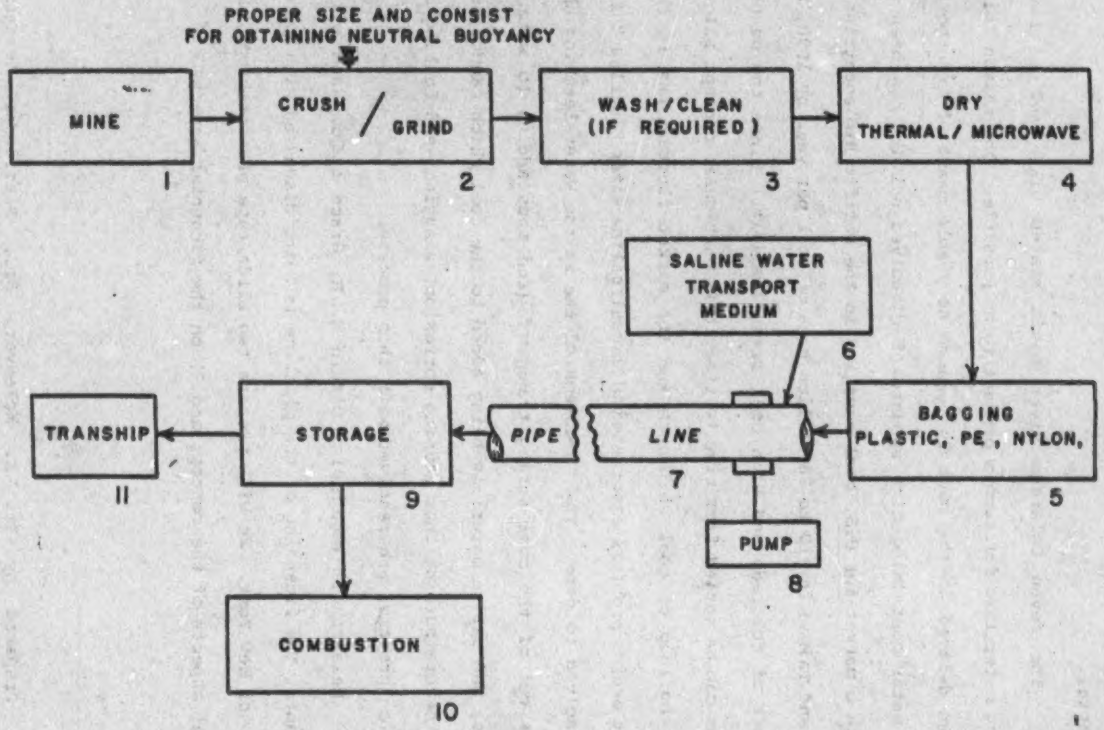
The seven Colorado River basin states will need to review their existing water laws for such a project to be possible. One reason this analysis has been delayed in the past is because no viable means of transporting coal and/or water containing high amounts of dissolved solids has been available. Now with a market for U.S. coal emerging in the Pacific Rim countries of Japan, Korea, and Taiwan for 10 to 20 million tons of coal per year by 1990, a pipeline transport of Colorado and Utah coal seems feasible. Since the number of coal capsules can be varied from time to time, this particular concept allows for the gradual buildup of coal shipments and for market fluctuations in the future. Also, it avoids problems associated with coal/saline water slurries that have not been resolved to date. The problems of the saline water leaching undesirable minerals out of the coal during transport (and thus adding to water disposal problems) and saline materials being added to the coal which cannot be entirely removed before burning thus causing corrosion, slagging, and fouling during the combustion process, are resolved with this process.

Research is continuing within W. R. Grace & Co., and with outside consultants. The financing of the pipeline is being discussed with Lazard Freres and Co. of New York. We will prepare two slide/tape presentations, 1) on the technical aspects of the concept and 2) on the financial aspects.

Prepared by Ira E. McKeever, Jr., President, Western Mining Operations, W. R. Grace & Co., Natural Resources Group, Stapleton Plaza, 3333 Quebec Street, Suite 8800, Denver, Colorado, 80207, (303) 399-0779.

ENCAPSULATED COAL TRANSPORTATION SYSTEM

SALINE WATER TRANSPORT MEDIUM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SALINE WATER TRANSPORT MEDIUM
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LINE
7
PUMP
8
PIPE
STORAGE
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COMBUSTION
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TRANSHIP
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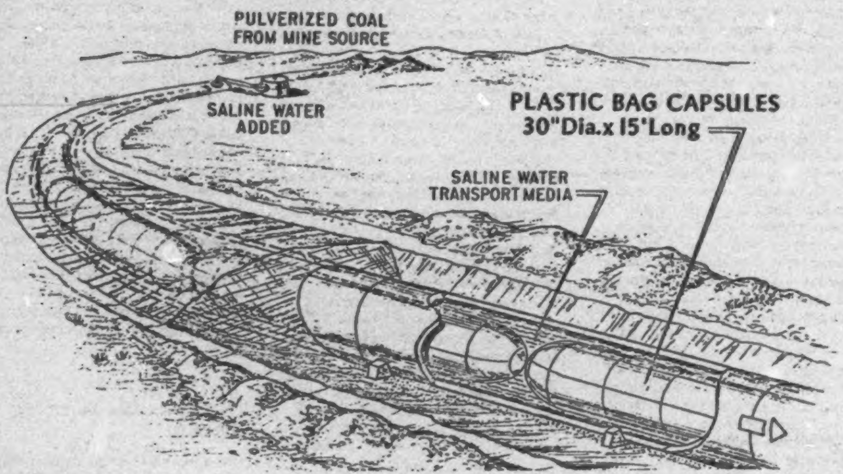
W.R GRACE & CO
FIRST REVISION
10/26/81-SB

Salinity Update

U.S. Department of the Interior
Bureau of Reclamation

A Quarterly Report on the
Colorado River Water Quality
Improvement Program

January 1982



Coal Capsule Pipeline?

By W.R. Grace & Co.

Concept: A pipeline unique to the Colorado River drainage area for transporting coal contained in disposable plastic capsules and thus completely separated from the saline water medium used to obtain neutral buoyancy of the coal container.

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Prepared by Ira E. McKeever, Jr., President, Western Mining Operations, W.R. Grace & Co., Natural Resources Group, Stapleton Plaza, 3333 Quebec Street, Suite 8800, Denver, Colorado, 80207, (303) 399–0779.

Paradox Valley Public Meeting

A public meeting and tour were held in Paradox Valley, Colorado, on November 13 and 14, 1981, for people interested in the Paradox Valley Unit of the Colorado River Water Quality Improvement Program. Bureau of Reclamation personnel and Mr. Ray Amstutz, a representative of Williams Brothers Engineering of Tulsa, Oklahoma, were on hand both days to present the results of last year's testing, to introduce the brine-disposal plan using deep-well injection, and to answer any questions on the unit.

Seventeen people attended the public meeting on Friday evening, November 13, in the Paradox Grade School. On Saturday, November 14, five people toured the well-field testing facilities. At the public meeting Rege Leach and Errol Jensen from the Durango Projects Office highlighted the results of the well-field testing and monitoring program begun in March 1980 along the Dolores River in Paradox Valley. These results showed that by pumping brine at a rate of 1.2 cubic feet per second (540 gallons per minute) approximately 60 percent of the past 8-year's average brine inflow could have been controlled. Originally, a 5 cubic feet per second (cfs) rate was anticipated as being necessary to control brine inflow to the Dolores River.

The audience was informed that by installing a few more pumping wells in strategic locations and by pumping at a rate of 2 cfs (900 gallons per minute), the originally estimated 180,000 tons of salt per year still could be removed. Many area residents, concerned about their domestic water supplies, viewed profiles of water-table levels that showed well-field pumping did not significantly affect their wells.

Bureau personnel and Mr. Amstutz also informed the audience that last year's findings concerning a pumping rate of 2 cfs, sufficient to control brine inflow, changed the criteria for evaluating disposal methods and made another alternative, deep-well injection, more attractive from the technical, economic, and environmental standpoint. Basically, the idea consists of conveying the brine from well field in a pipeline and disposing of it in a permeable geologic formation deep under Paradox Valley at a depth of approximately 14,000 feet.

Mr. Amstutz explained the technical details involved with deep-well injection of brine and, in response to one concern, stated, "If any potential for fresh-water contamination existed, we would not recommend it as a means of disposal." By December 1981, detailed designs and cost estimates will be available. Afterwards, a permit application for underground injection will be obtained from the State of Colorado, and an injection well will be built and tested for several months before making a final decision. While touring the well field, residents, even those who've lived in the valley for years, expressed surprise at the extensive areas of the brine inflow and the obnoxious odor of hydrogen-sulfide gas. The participants were told well-field testing and verification will continue and studies on evaporation pond disposal have been suspended until more information is available on deep-well injection. Many of the area residents commented favorably on the presentations and on the direction of the unit study.

CRSS Executive Summary Available

The Colorado River Simulation System, An Executive Summary, published in October 1981, is available by writing Bureau of Reclamation, D-752 (CRSS) P.O. Box 25007, Denver Federal Center, Denver CO 80225 or Telephone (303) 234-2027.

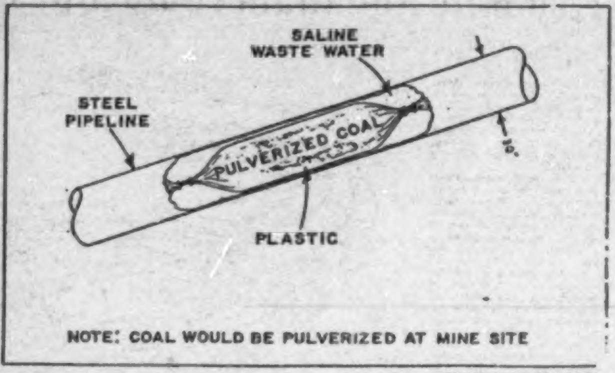
The CRSS (Colorado River Simulation System) is a deterministic digital computerized simulation model that has been developed by the Bureau of Reclamation in accordance with all of the "Laws of the River." With CRSS, proposed changes to the operation or alternative development schemes of the river system can be modeled and their effect on the future quantity and quality of water in the river may be evaluated.

ROCKY MOUNTAIN NEWS - SUNDAY, FEBRUARY 7, 1982

Water would carry plastic bags

Aquatrain coal pipeline under study

By SANDY GRAHAM
News Energy/Science Writer



GRAPHIC BY W.R. GRACE & CO

Plastic bags containing powdered coal would be floated to the West Coast inside a pipeline. Details of the system — Aquatrain — haven't been decided, but the pipeline would be 30 to 36 inches in diameter.

A giant energy and chemical company is considering putting powdered Western coal in plastic bags and floating them to the Pacific in a pipe filled with Colorado River water too salty for anything else.

W.R. Grace & Co. calls the plan Aquatrain.

It may sound a little crazy, but "I'm personally optimistic," says Ira McKeever, president of Grace's Western mining operation, which includes the Colowyo surface coal mine near Meeker.

McKeever hastens to add that Grace isn't anywhere near launching Aquatrain, which would cost several billion dollars. The project needs backers and still requires a lot of research. The kind of private and federal partnership Grace envisions needs the help of Congress. State laws, too, may need changing. Moreover, the project impinges on that most sacred of Western resources: water.

"In the West, you can go out with a rancher's wife, but don't mess with his water," jokes McKeever.

But pushing Grace to go on are these pluses:

● Aquatrain would be a bargain in the long run compared to sending Utah's and Colorado's high-grade coal to market by train. McKeever said the pipeline has a high initial price tag. But its operating costs are expected to escalate only a few percent a year compared to rail shipping, which has jumped 14 to 15 percent a year. It now costs Grace $27 to ship a ton coal by rail from Colowyo to Long Beach, Calif.; the charge goes up to $28.74 a ton after April.

● Because the coal would be in heavy-duty plastic bags, coal wouldn't contaminate the pipeline water. Nor would the coal have to be cleaned or dried at its destination. Both of these are economic and environmental concerns of conventional coal slurry pipelines where liquid and coal dust mix.

● Aquatrain could carry 10 million to 20 million tons of coal a year, enough to fill 100,000 to 200,000 coal cars.

● The project would remove about 250,000 tons of the 10 million tons of salt that are carried down the Colorado each year. Salt in the Colorado, most of it from natural sources, caused $86 million in damages last year, says the U.S. Bureau of Reclamation. By 2000, damages could reach $237 million per year.

Aquatrain "has been called a pipe dream, no doubt about it," says Michael Clinton, chief of the bureau's Colorado River Water Quality Office. "But from what I've seen, there are no technical problems that cannot be overcome."

Here's how it would work:

Grace proposes starting the saline pipeline near Rifle. The salt water would be intercepted before it goes into the river near Glenwood Springs, 26 miles east. McKeever said the project wouldn't harm the mineral-baths business.

The salt water taken from the river would be replaced with fresh water that Grace would pipe in from northwestern Colorado. The company [illegible] 12,000 acre-feet of water from the Yampa River in conjunction with its mining operations.

The coal would be cleaned, dried and crushed at the mine before it is bagged. Details of the system haven't been decided, but the pipeline probably would be 30 to 36 inches in diameter. The bag's diameter would be 85 percent of that and its length five times the diameter.

McKeever estimates that sausagelike coal baggies would float at 3 to 4 mph and would take 12 days to make the trip to the West Coast. The coal would float in the fresh water pipeline from the mine to Rifle, then head west in salty water.

At the trip's end, the coal probably would be unbagged, then stored or loaded for overseas shipment. The bags would be burned. The salt water would be dumped into the Pacific. (Sea water is far saltier — 33,000 parts per million — than even the worst stretch of the Colorado, which carries 870 parts of salt per million into the Imperial Dam in California.)

The exact route of the pipeline hasn't been chosen. McKeever said it depends somewhat on who joins Grace in the venture. Far Eastern countries are a possibility, he said. The coal market there is expected to grow to as much as 20 million tons a year by 1990.

Developing a plastic bag that won't tear apart on the 1,200-mile trip and figuring a way to propel the system are the two biggest technical questions remaining, McKeever said.

Grace says the portion of Aquatrain that helps reduce salt in the Colorado ought to be paid for by the government and that sort of private-federal teamwork for salinity control requires a new federal law. The Colorado River Basin Salinity Control Forum, made up of representatives of the seven basin states, has drafted legislation that Sen. William Armstrong, R-Colo., is considering introducing.

The bill calls for projects that "would turn the water into a new kind of economic mineral, where it isn't a waste product anymore but an economic engine," says Armstrong aide David Jensen. Armstrong hasn't endorsed any salinity control project.

The Bureau of Reclamation has been charged with removing 2.8 million tons of salt a year from the Colorado by the year 2000, says Clinton. The bureau's estimates show private-federal joint ventures, ranging from the Grace idea to the use of salt water for power plant cooling, would save three-fourths of the cost of building desalting plants or evaporative ponds.

Aquatrain eventually would decrease the Colorado River's flow, since the Yampa, where Grace would take fresh water, empties into the Green River, which flows in the Colorado. But alternatives for salinity control would eliminate even more, Clinton says. The Bureau of Reclamation tentatively plans to build a series of desalting ponds along the river, beyond Grand Junction, that would evaporate 15,000 to 20,000 acre-feet of water a year. And the 12,000 acre-feet Aquatrain would take is considered relatively insignificant compared to the millions of feet the river system carries.

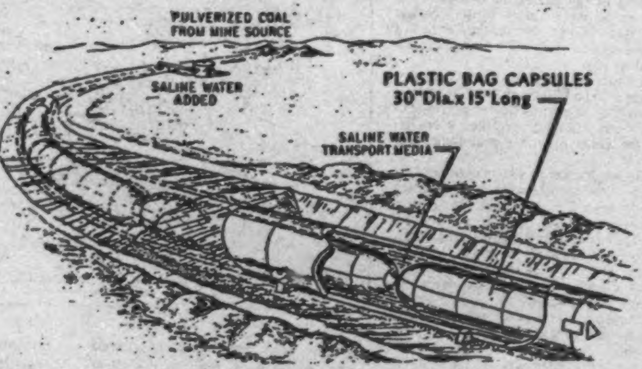
Grace ranks on Fortune magazine's list of the 500 biggest U.S. companies. Its 1980 sales were more than $6.1 billion. Its businesses range from oil and coal to restaurants and retailing. It operates Sheplers Western wear stores, Herman's World of Sporting Goods and Del Taco Mexican fast-food restaurants.

The company also is studying coal slurry pipelines that would use liquid carbon dioxide or methane instead of water.

PEOPLE

1200-mile Aquatrain could pipe coal to west

By STEVE McMILLAN
Staff Writer


PULVERIZED COAL FROM MINE SOURCE
SALINE WATER ADDED
PLASTIC BAG CAPSULES 30"Dia.x 15'Long
SALINE WATER TRANSPORT MEDIA

Aquatrain would start at about 25 miles south of Craig near the Colowyo mine and pipe crushed coal to Rifle and then on to the West Coast. The proposed 1200-mile line will cost hundreds of million dollars to construct and could be in operation by 1988 if all goes as planned.

It's still in the planning stage, but a 1200-mile pipeline to carry coal from Northwest Colorado to the West Coast could be operational by 1988 if W.R Grace & Co.'s quest for financing, technology and water rights is successful.

W.R. Grace, the company that owns and operates Colowyo Coal mine about 25 miles south of Craig, calls its proposed pipeline Aquatrain because it would use water to propel sacks of pulverized coal through the line.

Besides being a potentially more economic means of transporting coal than by railroad, the new pipeline would help alleviate salinity problems in the Colorado River, according to Ira McKeever, W.R. Grace & Co. president of Western Mining Operations.

"It's still conceptual. There are several technical problems we need to answer," McKeever said, adding that problems of coal packaging and hydraulics are now under study.

It now costs W.R. Grace about $18 a ton to ship coal from its Colowyo mine by rail to Long Beach, Calif., McKeever said. Shipping via pipeline "would be competitive with the current rates," and more economical in the future, he added.

Discussions between representatives of the seven states involved in the Colorado River Basin Salinity Control Forum also are underway, attempting to work out details of water rights transfer. The coal pipeline would divert 12,000 acre-feet of water from Colorado to the Pacific Ocean.

Financing is contingent upon long-term contracts — either domestic or foreign — for sale of the piped coal, according to McKeever. "It won't be built without long-term contracts, that's the key."

The coal pipeline is a unique idea for transporting crushed coal in disposable plastic capsules about 30 inches in diameter and 15 feet long. The 36-inch diameter pipeline would be capable of moving 30 million tons of coal a year.

McKeever said the exact route of the pipeline has not been chosen.

Other details also must be worked out but current proposals are to clean, dry, crush and sack coal at the mine site before loading it in the pipeline. The coal-filled sacks would float at three to four miles per hour and would take about 12 days to make the trip to the West Coast.

Coal would be unbagged at its destination and stored or shipped overseas if the foreign market is developed. The sacks would be burned.

W.R. Grace's proposal is to start the line in the Axial Basin near its Colowyo mine and run the first leg to a point near Rifle. About 12,000 acre feet of water for this section of the line would be removed from Milk Creek, a tributary of the Yampa River, for use as a carrier. The fresh Yampa River water would then be dumped into the Colorado River near Rifle.

Near Rifle, the western leg of the pipeline would begin. Water with a high salt content, which occurs naturally in the Glenwood and Deserado areas, would replace the Yampa River water as the carrier — thus helping to reduce the high salt content of the Colorado River when the fresh Yampa River water is dumped into the Colorado.

Getting damaging salt out of the Colorado River is the job of the Bureau of Reclamation, and the pipeline project has sparked a potential partnership between W.R. Grace in the private sector and the federal government.

"It's really a fascinating concept...I think it has a very significant chance of flying," said Mike Clinton, bureau chief of the Colorado River Water Quality Office.

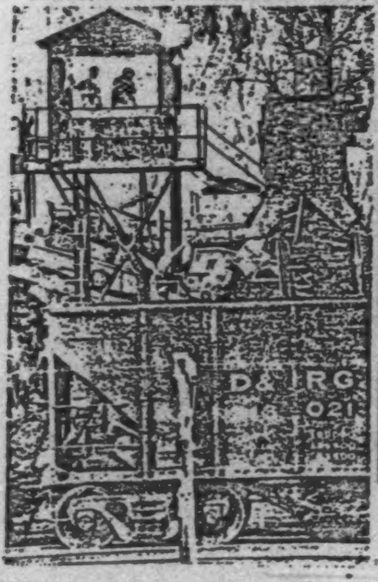
"We are very pleased with Graces' initiatives in this area," he said, adding that if the technology can be worked out the pipeline could save the government a considerable amount of money.

Sen. Bill Armstrong, R-Colorado, is working on legislation that would open the way for the public sector to help with the pipeline financing since removing salt from the Colorado River is a government responsibility. "Our interest would be to share the cost with private industry in a ratio with what our benefits are," Clinton said.

Graces' pipeline could remove about 250,000 tons of the 10 million tons of salt that are transported down the Colorado River each year. Bureau of Reclamation estimates state that salt in the Colorado River caused $86 million in damages last year and by the year 2000 could cause $237 million in damages a year.

Costs of removing salt from the river through the pipeline would be about one-fourth the current costs of desalination, Clinton said.

Photos by Jim Roland
Graphic by W.R. Grace



Above, a giant bulldozer plows coal into a pile in preparation for truck transport to the loadout, where it will be dumped into a train and shipped to public utilities and other users, left. If the proposed Aquatrain is built by W.R. Grace, coal shipment by railroad to the West Coast would have a significant competitor.

MANAGEMENT SUMMARY
HYDRAULIC DESIGN AND COST ESTIMATE FOR A COAL WATER CAPSULE PIPELINE

W. R. GRACE AND COMPANY

Colorado School of Mines Research Institute

COLORADO SCHOOL OF MINES RESEARCH INSTITUTE

HYDRAULIC DESIGN AND COST ESTIMATE FOR A COAL WATER CAPSULE PIPELINE

Prepared for

W.R. Grace and Company
Natural Resources Group
3333 Quebec Street
Suite 8800
Denver, CO 80207

By

Colorado School of Mines Research Institute
Golden, Colorado 80402

Project C10725

January 19, 1982

James M Link
James M. Link
Director
Exploration & Mining Division

Robert L. Griffis
Robert L. Griffis
Project Engineer
Energy Division

R.R. Faddick
R. R. Faddick, Ph.D.
Slurry Transport Specialist
Exploration & Mining Division

INTRODUCTION

In July of 1981, Mr. Ira E. McKeever, Jr., President of Western Mining Operations for W.R. Grace and Company, contacted Mr. J.M. Link of Colorado School of Mines Research Institute to discuss a feasibility study for a coal slurry pipeline. After several discussions, a proposal for the study was submitted by Mr. Link on August 24, 1981. Work was authorized by Mr. McKeever on August 26, and began almost immediately.

The system design was based upon the discussions between Mr. Link and Mr. McKeever at the Research Institute on August 13, 1981. Briefly, brackish or salt water obtained from wells in the Piceance Basin, from the federal desalinization station to be built near Rifle, Colorado, or other sources will be used as the carrier. Neutrally buoyant capsules of coal contained in plastic bags will be preparaed at Axial and injected into the pipeline. The pipeline route would be from Axial, Colorado to Oxnard, California via Rifle and Grand Junction, Colorado and the Kaiparowits Plateau. This route was adjusted to suit terrain features as shown on Army Map Service 2 degree sheets. Pipe diameter and wall thicknesses, as well as pump station locations, were defined on the basis of the terrain and predicted power requirements.

Capsule friction losses were computed from test data reported by various investigators. For the most part, these data were from smaller pipes and were scaled to the size proposed for this system.

The size distribution of the coal to be encapsulated and the specific gravity of the capsules was based on limited experimental work conducted at the Institute. For this work three 35-gallon drums of coal were provided from the Colowyo mine at Axial.

The conceptual design for the capsule pipeline will transport 10 to 15 million tons of coal capsules to the West Coast annually. Because of the lack of certainty regarding the availability of novel equipment, no refined cost estimates were prepared. However, descriptions of the pipeline, route, pipe and pump station requirements, and associated cost estimates were prepared.

SUMMARY AND CONCLUSIONS

This report presents the logic behind the conceptual design of a coal capsule pipeline connecting Axial, Colorado and Oxnard California. The route selected is 967 miles long and the system will transport 10 to 15 million tons of dry coal annually.

The pipeline itself is a conventional 30-in. slurry type of pipeline. It is constructed of high-strength welded steel pipe and is coated and wrapped externally and is buried at least 3 feet below the ground surface.

The pipe is also coated on the inside with a 30 mil coating of plastic or epoxy resin. This is done so that the corrosive water used will not attack the steel. The coating will also ensure a smooth interior surface so that the capsules will not be torn or otherwise damaged in transit.

The water used to transport the capsules from Axial to Rifle, Colorado will be freshwater from the Yampa River. At Rifle, this water will be dumped into the Colorado River and saline water from the Glenwood Springs-Dotsero area will replace it. At the west coast, the saline water will be discharged into the Pacific Ocean. While no chemical data were obtained in the course of this study, the saline water reportedly has about half the dissolved solids of seawater. Further chemical analyses will be required to assess the potential for environmental damage, if any.

Coal from the Axial area will be crushed to pass ¼ inch and then dried. Following the drying, the coal will be packed into a heavy duty plastic tube to form the capsules. Each capsule will be about 12.5 feet long and 2.1 feet in diameter, and will contain approximately 1.4 tons of coal. Packing of the coal will be controlled so that the capsules have the same bulk density as the saline water.

While the report assumes individual capsules, the concept of long trains of capsules (Aquatrain) produced by a continuous manufacturing process has great appeal. By connecting the capsules, the 6 foot spacing between capsules, assumed in the design portion of this study, could be reduced to a foot or less. The increased volumetric efficiency of the pipeline could be used to transport additional coal at virtually no cost.

Because of the terrain, pipeline pump stations would be of two kinds. At several points along the pipeline, pressure input into the system would be required. This would be accomplished by forcing a single capsule, or a train of capsules, into a fluid-filled pipe by means of pumping water through the pipe at high volumes and low pressures. When the capsule is in the pipe, valves close to isolate the segment from the low pressure side of the system and other valves open to connect the segment to the main pipeline. High pressure water then forces the capsule out into the pipeline and it joins the transport flow. This process is repeated to inject a steady stream of capsules or trains of capsules into the system.

At several places, pipeline pressures become excessive and pressure must be removed from the system. The same type of system described above would be used for the purpose, but the sequence of operations would be reversed to reduce pressure.

A unique situation exists at Rifle where the capsules must pass into the pipe segment, the water must drain out, and it must be replaced by high pressure saline water. The same type of pump system would be used at Rifle, but valving and other mechanisms would be more complex.

Capsule recovery would be by discharge into a large launder. Capsules would flow down the open channel and would move onto a slack wire conveyor belt. The belt would support the capsules to prevent breakage and would allow the water to drain off. A fresh water spray would remove any residual salts from the surface of the capsule.

Once on the conveyor belt, the coal capsules could be emptied and the coal would be handled in a conventional manner. As an alternative, the capsules could be loaded directly onto ships for export. Separation of the coal and capsule would then be handled by the customer.

The capital cost estimate for what appears to be the best pipeline system, pumps, and so forth is 1,604.81 million 1981 dollars. This figure does not include capsule manufacturing, capsule recovery, or terminal facilities at Oxnard.

Annual operating costs for the system moving 15 million tons estimated to be:

	$/yr	$/ton
Labor and Supervision	$ 1,778,540	$ 0.119
Materials and Supplies	14,544,000	0.970
Utilities	29,884,000	1.992
Labor and Other Overhead	1,287,500	0.086
Subtotal	$ 47,495,040	$ 3.166
Depreciation	45,597,000	3.040
Property Taxes	4,154,000	0.277
Insurance	6,066,000	0.404
Finance Charge	104,626,600	6.975
Subtotal	$160,443,600	$10.696
Total	$207,938,640	$13,862

At 10 million tons per year the estimated cost is about $19 per ton of coal delivered.

RECOMMENDATIONS

Construction and operation of a capsule pipeline system of the size described in this study has never been attempted. Therefore, a prudent approach would be based on substantial research and test work. Such work would provide the hard data required to engineer the successful system.

The area of most immediate concern is capsule design and construction. A test program designed to identify the best plastic and capsule manufacturing process would be a logical first step.

Handling of the capsules at either end of the pipeline might be done by conventional means. Therefore, a capsule capable of surviving a modest amount of rolling, lifting, stacking, and so forth would be desirable. Capsules could be fabricated by hand and subjected to a series of tests to determine their resistance to such abuse.

A second series of tests could be conducted by subjecting the capsules to pressures up to 5,000 pounds per square inch. These tests would be conducted to determine the resistance of the capsule to perforation by the sharp edges of the coal particles.

Another series of tests would deal with the resistance to abrasion of the capsule material. The capsules could be placed in a water-filled tank and rubbed with a large diameter wheel of the same or similar material. The number of hours required to create holes in the bag would be recorded as would the test conditions.

A second area requiring substantial effort will be the pump stations. Perhaps the best method to approach this problem would be the construction of a full scale test loop. The full size test facility is recommended because the research work to date has been performed in pipes of relatively small size. Capsules of the selected material could then be passed through the pumps a number of times, and the effects on the capsule of rapid pressure changes, starting and stopping, bumping, and so forth, could be determined.

The test loop would also allow the design, testing, and evaluation of the large number of devices available for pumping capsules. Prior to the test work a thorough international literature search should be conducted. Perhaps manufacturers could be interested in participating in the test work to prove or improve their devices.

An in-depth route study and detailed survey should be conducted. This might allow the selection of an improved location for the pipeline. Also, the willingness of the city of Oxnard or any other city to provide the port should be examined.

A detailed analysis of ship loading and market requirements is needed. Such things as coal quality and market requirements, spontaneous combustion or explosion potential, and other similar factors must be evaluated. If a dried coal is to be shipped, the capsules must be loaded and unloaded from the ship. Whether and how this is done will require a thorough investigation of both capsule handling equipment and related port requirements.

Finally, a thorough and comprehensive analysis of the potential environmental, governmental, and other impacts must be made. This analysis should include the methods and degree of interfacing of the proposed pipeline and the proposed federal desalinization program.

The concept is a good one, but the successful operation of the system will require a market for 10 to 15 million tons of coal per year. Therefore, the potential customers for the coal must be identified early and their participation in the project obtained.

A further potential for the manufacture and marketing of the capsule pipeline concept exists. If the utility of the concept can be demonstrated, applications outside of W.R. Grace and Company should be sought.

AN ASSESSMENT OF THE USE OF FLEXIBLE SKIN CAPSULES FOR LONG DISTANCE COAL TRANSPORT

FINAL REPORT

PREPARED FOR

W.R. GRACE & CO., MINING DIVISION

BY

CHINOOK FUEL INNOVATIONS LTD.
SUITE 200, 604 - 1st STREET S.W., CALGARY, ALBERTA, T2P 1M7, CANADA
TELEPHONE: (403) 261-0940 TELEX: 038-27870

JANUARY, 1982

EXECUTIVE SUMMARY

W.R. Grace & Co. wishes to evaluate the transport of coal by pipeline in flexible wall plastic capsules using saline water as the transporting medium. To assist in the evaluation, Chinook Fuel Innovations Ltd. was commissioned to provide a technical assessment of the proposed pipeline in relation to existing experimental work carried out at the Alberta Research Council (ARC) and to provide updated cost factors for the ARC Capsule Pipeline Techno-Economic Simulation Model relative to coal capsule transport. Economic analysis of the system was not included in the scope of the study. In addition, a proposed development plan directed towards implementation of the coal capsule pipeline was formulated.

Within the scope of the study, no technical obstacles to the proposed pipeline were identified, but several critical development areas were noted and included in the proposed development plan. These are:

> Capsule integrity - The overall marketing plan involves transfer of capsules from the pipeline to ocean freighter at tidewater. The capsules must be sturdy enough to withstand handling. The capsules must be capable of withstanding pipeline pressures up to 2000-3000 psi without rupturing when filled with ground coal.

In addition, several areas were identified in which development work is required to provide updated engineering design and economics data. These are:

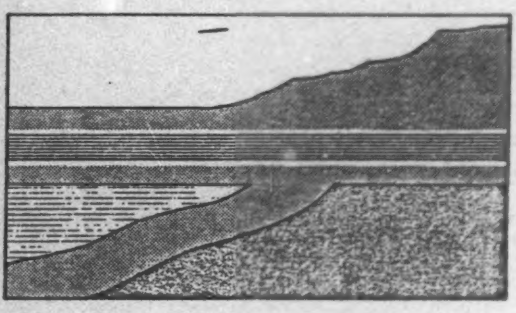
> Bypass systems - Since capsules cannot be passed through pumps, switching systems must be used so that capsules bypass the pumps without damage. Development of effective bypass systems for booster stations has been a major concern of workers in capsule pipeline systems. To provide an up to date evaluation, potential methods of operating booster pump stations in capsule pipelines should be considered from a systems operation viewpoint to define the most promising alternatives. These should

then be tested experimentally in a test loop with the object of obtaining the highest possible linefills.

Capsule fabrication - Equipment must be developed to permit fabrication of single or linked capsules at suitable capsule densities. The range of capsule densities obtainable with the fabrication equipment and the degree of capsule dencity control possible are important because of the effect of capsule density on the pressure gradient in the pipeline and the influence of pressure gradient on hydraulic design of the pipeline. The lowest pressure gradients will be obtained with equal capsule and water carrier densities (neutral density capsules).

The proposed development plan consists of preliminary capsule testing to confirm capsule integrity under operational conditions and to define capsule properties and bypass system evaluation to select alternatives for experimental testing, leading to development of capsule fabrication equipment and operation of a large scale (i.e., 10-inch diameter) pilot loop to generate design information for the commercial installation.

W. R. Grace & Co. Coal Transportation Pipeline



Regulatory Review

February 1982

ERT
A COMSAT COMPANY
ENVIRONMENTAL RESEARCH & TECHNOLOGY, INC.
FORT COLLINS, COLORADO

PB204

REGULATORY REVIEW FOR COAL TRANSPORTATION PIPELINE (Aquatrain)

Prepared for

W. R. GRACE & CO.
Denver, Colorado

Prepared by

ENVIRONMENTAL RESEARCH & TECHNOLOGY, INC.
Fort Collins, Colorado

February 1981

EXECUTIVE SUMMARY

ERT conducted a regulatory review and evaluation of federal and state regulations potentially affecting W. R. Grace's proposed coal transportation pipeline (Aquatrain). Four major federal permitting actions were identified:

- A Bureau of Land Management Environmental Impact Statement (EIS).
- BLM and Forest Service right-of-way grants.
- Corps of Engineers Section 404 and Section 10 permits.
- National Pollutant Discharge Elimination System (NPDES) permits administered by the states or EPA.

Four major categories of state permits were identified:

- Right-of-way permits across state lands.
- NPDES permits.
- Air quality permits.
- Antiquities permits and cultural resource reviews.

The most significant federal permit is the EIS which would be the "critical path" for federal permits. California state permits, primarily the Coastal Development Permit, may become the critical path for all permits since local and municipal permits must be approved before it is issued. Further study is necessary to investigate and evaluate local permits and permits required for specific facilities (i.e. port facilities). To ensure a thorough and expeditious review and approval of state permits, the California office of Permit Assistance should be contacted early in the project. W. R. Grace should investigate local permits especially those related to coastal facilities immediately.

No issues concerning the construction or operation of the coal transportation pipeline have been identified as fatal flaws for meeting regulatory requirements specified or required in federal permits. Most concerns voiced by agencies relative to the pipeline were similar to those relating to other large pipelines. These include; careful routing and planning to avoid impacting threatened and endangered fish present in the Colorado River, avoiding wetlands and known cultural resources, using good construction techniques to reduce erosion runoff and sedimentation, planning mitigation such as revegetation, and controlling the construction work force. No specific concerns relative to transporting or disposing of salt water were expressed. Issues and concerns are discussed in Chapter 3.

Successful permitting will depend on two critical factors: 1) the selection of an environmentally compatible corridor and port location, and 2) the Federal EIS (see Chapter 4.0). The next step Grace should initiate is the investigation of municipal and county regulations that would affect the siting of a port facility. Then Grace will be ready to prepare a permit strategy and initiate the federal EIS. ERT has suggested a step by step approach for securing the required permits (see Chapter 4.0). Total costs for acquiring state and federal permits are estimated at about 2 to 3 million dollars, (not including engineering), assuming the Aquatrain is permitted under a separate EIS (see Chapter 5.0).

STATE OF COLORADO

COLORADO WATER CONSERVATION BOARD
Department of Natural Resources
823 State Centennial Building
1313 Sherman Street
Denver, Colorado 80203
Phone: (303) 839-3441

Richard D. Lamm
Governor
J. William McDonald
Director
David Walker
Deputy Director

RECEIVED
MAR 12 1982
[illegible] JR.

March 9, 1982

Mr. Ira E. McKeever, Jr.
President. Western Mining Operations
Natural Resources Group
W. R. Grace and Company
3333 Quebec Street, Suite 8800
Denver, Colorado 80207

Dear Ira:

On behalf of Monte Pascoe, David Robbins, and myself, I would like to thank you and Betsy for taking the time and trouble to review the current status of the proposed "Aquatrain" project with us. We appreciate having had the opportunity to be brought up to date.

I trust that, consistent with our discussion, we may look forward to continuing close coordination as the proposed project moves forward. In this regard, I will be taking a personal interest in the project in order to insure that the State's involvement is both timely and responsive to the questions and issues which will undoubtedly arise.

Thank you again for your time and consideration.

Sincerely,

Bill

J. William McDonald
Director

JWMcD:mm

COLORADO WATER CONSERVATION BOARD, Frederick V. Kroeger, Chairman
Robert A. Jackson, Vice Chairman • John R. Fetcher, Steamboat Springs
C.M. Furneaux, Walden • Floyd L. Getz, Monte Vista • Patrick A. Gormley, Grand Junction
Richard W. Johnston, Montrose • David W. Robbins, Denver • Herbert H. Vandemoer, Sterling

STATE OF CALIFORNIA—THE RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

COLORADO RIVER BOARD OF CALIFORNIA
107 SOUTH BROADWAY, ROOM 8103
LOS ANGELES, CALIFORNIA 90012
(213) 620-4480

February 9, 1982

RECEIVED

FEB 11 1982

OFFICE OF I. E. [illegible], JR.

Mr. Robert Broadbent, Commissioner
U. S. Bureau of Reclamation
Interior Office Building
Washington, D. C. 20240

Dear Bob:

At the October 27, 1981 meeting of the Colorado River Basin Salinity Control Forum, the Forum's Work Group was asked to investigate the proposal by W. R. Grace Company for a coal water capsule pipeline. The Work Group had an opportunity to hear a presentation by W. R. Grace Company at its February 2, 1982 meeting. The members found the proposal sufficiently interesting to give it further consideration and study. The proposal offers the potential of disposing of about 10 percent of the total salt load which needs to be removed from the river to maintain the numeric criteria for salinity in the lower mainstem. The proposal is consistent with the Forum's policy calling for the use of saline water and the Bureau of Reclamation's recent report on the use of saline water by industry.

We recognize that the proposal presents many questions with respect to water rights and water policy issues, economics, environmental impacts, and technical feasibility. We have formed a subcommittee to evaluate the issues which relate to state water rights and water policy.

We would like the Bureau of Reclamation to evaluate the impact of the Company's proposal on the overall salinity control program and the degree of federal participation in such a program. It would also be helpful if the Bureau, in cooperation with the Bureau of Land Management, would evaluate the environmental impacts. Finally, we recommend that the Bureau of Reclamation coordinate the federal government's activities with respect to the W. R. Grace proposal.

Sincerely,

Myron

Myron B. Holburt
Chief Engineer

cc: Members, Salinity Control Forum
Work Group
Ira McKeever, W. R. Grace Company

MEMO
March 23, 1982
Page 1

U. S. DEPARTMENT OF INTERIOR (BUREAU OF RECLAMATION)/W. R. GRACE ET AL

PROJECT: Aquatrain

MEETING: March 26, 1982, U. S. Department of Interior, Washington, D. C.

MEETING PURPOSE: Develop a basis for agreement to build saline water/coal capsule pipeline for Colorado River salinity control and western coal transport. Inherent in this basis for agreement would be: 1) the assignment of team leaders, and 2) draft letter of intent between Department of Interior and W. R. Grace et al to proceed through plan of study.

ASSUMPTIONS:

1) This project will develop a product transport system providing long-term salinity reduction benefits.

2) Project will be subject to full public involvement. Media relations will be done jointly by team leaders.

3) Long-term coal sales contracts open to both foreign and domestic customers must be obtained.

4) In recognition of the salt load reductions which the project would achieve, funding should be provided in part by the appropriate governmental entities.

5) Suitable federal legislation will be passed allowing this type of cooperative effort.

6) a) Preliminary financing will be obtained for coal technology development from both foreign and domestic sources.

   b) Financing for construction of coal capsule portion will be obtained based on the two revenue streams listed in 3) and 4) above and other interested equity participants.

   c) Federal funds will be used to build saline water collection and transport to Rifle area and to share in the annual operation and maintenance cost.

7) W. R. Grace/et al is open to other interested parties with money contributions until project details are concluded. Needs of the market will be considered in scoping the project. It will not be a common carrier.

8) Technical, legal, environmental, etc. questions must be solved.

9) The Bureau of Reclamation will take the lead for the Department of Interior. Department of Interior (Bureau of Reclamation)/W. R. Grace et al will agree on areas of responsibility.

* 10) Department of Interior (Bureau of Reclamation)/W. R. Grace et al will assign necessary team leaders to carry out the liaison between all parties.

11) Existing patents and patent applications will be honored. New ones developed on the project with federal funds will become public.

12) Other technologies will be evaluated as complementary aids to achieving our goal of a pipeline to carry saline water and coal as principle products.

13) A facility for issue resolution management will be made available.

* 14) Letter of Intent between DOI/W. R. Grace et al to proceed through plan of study will be forthcoming.

15) All federal, state and local laws, and regulations will be complied with.

16) Other.

* Assumption 10 and 14 are stated in meeting purpose on page one.

PROPOSED LEAD ROLE W. R. GRACE ET AL WOULD PLAY:

1) Negotiate with interested coal customers. Final coal contracts will be contingent upon project completion.

2) Provide conceptual leadership on the coal portion of project--including bag technology, pumping stations, preparation, etc.

3) 12,000 acre ft./yr. of Yampa River Basin fresh water rights controlled by W. R. Grace/Hanna would be made available for the project.

4) Provide reservoir site in Axial Basin for fresh water.

5) Provide a portion of coal reserves for project and attempt to interest other coal suppliers to join in the project.

6) Establish a coal export corporation for export sale of coal moved through pipeline.

7) Discuss private financing alternatives through Lazard Freres, an international investment banking firm, and other contacts.

8) Finalize non-federal funding with outside entities to assure bankable project.

9) W. R. Grace et al will provide data for E.I.S. studies relating to coal mining, treating, preparation, etc.

10) Other.

PROPOSED LEAD ROLE U. S. DEPARTMENT OF INTERIOR WOULD PLAY:

1) All matters related to saline water collection, storage, and transfer.

2) All right-of-way matters.

3) Programmatic E. I. S. and related studies.

4) Regional air quality study of Northwest Colorado and other pertinent areas.

5) DOI to be contracting officer for feasibility studies and would participate in design, construction, and management of the project to protect the long-term public interest.

6) Other.

ACTIVITIES REQUIRING COORDINATION WITH THE U. S. DEPARTMENT OF INTERIOR (BUREAU OF RECLAMATION)/W. R. GRACE ET AL AND THE STATES:

1) Public meetings.

2) Press releases.

3) Development of PERT, C.P.M. (Critical Path Method) or other acceptable planning method.

4) Schedule of funding required.

5) Impact mitigation.

6) Coordination with utilities and other development interests.

7) Selection of optimum pipeline route.

8) Matters concerning allocation of project costs between W. R. Grace et al and appropriate governmental entities.

9) Other.

MATTERS THE STATE OF COLORADO AND 7-STATES NEED TO ADDRESS:

1) Transport of saline water across state lines.

2) Interbasin saline water transfer questions.

3) An analysis of impact on compact questions.

4) Other.

United States
Synthetic Fuels Corporation

CRAIG
FOR
RECORD

CG: 19 - #3
Nices

Becraft
UP
Northwest Pipeline Corp

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THIS INFORMATION MAY BE PROTECTABLE UNDER EXEMPTION FROM DISCLOSURE CONTAINED IN SECTION 121 OF THE ENERGY SECURITY ACT OF 1980

CONFIDENTIAL

CONTROL AND SECURELY STORE THIS MATERIAL

CG-19-3

NORTHWEST PIPELINE CORPORATION

315 EAST 200 SOUTH
P.O. BOX 1526
SALT LAKE CITY, UTAH 84110
801-534-3600

March 31, 1981

John J. McAtee
Acting Chairman of the Board
Synthetic Fuels Corporation
1200 New Hampshire Ave., N.W.
Suite 210
Washington, D.C. 20037

Dear Mr. McAtee: -

Pursuant to the "Initial Solicitation of Project Proposals" issued on December 2, 1980 by the United States Synthetic Fuels Corporation (SFC) (45 Fed. Reg. 79965), Northwest Pipeline Corporation submits its proposed project, referred to as Northwest Integrated Coal Energy System (NICES), for review in Phase I.

NICES consists of four major elements. First, NICES will have a 25-million ton-per-year coal slurry line. The line will run from the subbituminous coal fields of the Powder River Basin to the Synthetic Natural Gas (SNG) Integrated Gasification Combined Cycle Electric Generation (IGCC) facilities on the Columbia River in North Central Oregon, and then on to Portland for coal export. Second, a high-Btu SNG plant will be constructed at the Oregon site near the city of Boardman. The plant will use a Texaco gasifier to allow the slurry to be fed directly to the plant. Although originally designed for 250 million cubic feet per day, plant size will be reevaluated to optimize its relationship to the medium-Btu gas requirements of the IGCC. The third element of the system is the IGCC electric generation facility. Current plans call for the immediate construction of conventional combustion turbines (CT) for peaking power to help supply short-term power needs. The CTs will then be incorporated into highly efficient base-load combined-cycle plants as the medium-Btu gas becomes available. The final NICES element is the existing NWP gas transmission system. This system crosses the SNG/IGCC location, permitting easy distribution of SNG and coordinating existing rights-of-way for the slurry line.

Northwest has been studying various aspects of this project for more than six years. Recently, however, Northwest has restructured the project to include an integrated gasification combined-cycle electric generation facility. Because of this reconfiguration, at this time Northwest is unable to submit a detailed proposal. Nevertheless, Northwest now foresees a substantial need to obtain financial assistance from the SFC. Accordingly, Northwest is submitting the attached preliminary proposal for consideration in Phase II. Northwest plans to supplement this proposal as the structure of the revised project becomes more fully developed, the preliminary engineering analysis is completed and the financial plan reflecting the new venture configuration, capital requirements and income are established.

Sincerely,

F. J. Becraft

F. J. Becraft
Vice President - Gas Supply

FJB:pal
Encl.

NORTHWEST INTEGRATED COAL ENERGY SYSTEM

I. EXECUTIVE SUMMARY

The Pacific Northwest region of the country faces a broad range of problems which may jeopardize the orderly and reliable supply of both natural gas and electricity in the near future. The region relies on expensive Canadian imports for roughly 60 percent of its natural gas supplies. By 1989 the current contracts for almost all of this supply will expire. Northwest Pipeline Corporation (NWP), a subsidiary of Northwest Energy Corporation (NWE) is the major gas supplier to the region. Its contracts for Canadian supplies total almost 1 billion cubic feet of gas per day.

Regional electric supplies are also in disarray. Although regional capacity seems adequate, most generation (70%) is from hydro plants. Recent extended dry periods have shown the vulnerability of such supplies. Current attempts to reduce this vulnerability have been damaged by delays to the five Washington Nuclear Project reactors. The Department of Energy recently summarized these impacts by predicting a 95% chance of an energy deficiency for the 1985 period. Further exacerbating this problem is the fact that almost all the replacement and emergency power for the region is oil fired. In 1985 the increased consumption in oil due to these problems may be almost 250,000 barrels per day.

NWP has recognized the threat to its own basic business activities of dependence on foreign oil by aggressively pursuing the concepts of producing synthetic natural gas (SNG) from abundant domestic coal supplies. Acknowledging the regional problems in electrial energy supply, NWP has recently expanded the scope of its activities to also include integrated gasification combined cycle (IGCC) electric generation. The overall SNG/IGCC system formulated by NWP is referred to as the Northwest Integrated Coal Energy System (NICES).

NICES consists of four major elements. First, NICES will have a 25 million ton-per-year coal slurry line extending from the subbituminous coal fields of the Powder River Basin to the SNG/IGCC facilities on the Columbia River in North Central Oregon, and then on to Portland for coal export. Second, a high-Btu SNG plant will be constructed at the Oregon site near the city of Boardman. The plant will use a Texaco gasifier to allow the slurry to be fed directly to the plant. Although orginally designed for 250 million cubic feet per day, plant size will be reevaluated to optimize its relationship to the medium-Btu gas requirements of the IGCC. The third element of the system is the IGCC electric generation facility. Current plans call for the immediate construction of conventional combustion turbines (CT) for peaking power to help supply short-term power needs. The CTs will then be incorporated into highly efficient base-load combined cycle plants as the medium-Btu gas becomes available. The final NICES element is the existing NWP gas transmission system. This system crosses the SNG/IGCC location and allows easy distribution of SNG, and also supplies existing rights of way for the slurry line.

Project History

NWP has considered the construction of a coal slurry line since 1974. A series of studies on engineering specifications and water supplies have established the technical feasibility of a line. However, regional coal needs were not sufficient to justify a line large enough to fully exploit the scale economies inherent in a pipeline. Changing market conditions suggested NWP's own need for SNG and an evolving coal export market to the Pacific Basin could fill the necessary coal demand. Thus, an initial NICES configuration was evaluated considering only SNG production, export coal, and nonassociated electric power production.

Several factors have combined to modify this concept to include the direct integration of medium-Btu fired combined cycle electric generation. There are four basic factors which caused this modification. First, the region needs a short-term supply of electric power, and reliable and efficient long-term capacity. IGCC allows almost immediate use of CTs and long-term efficiency almost 10% better than baseload coal plants. Second, environmental concerns are growing, and continue to be a major barrier to the development of new power plants. IGCC meets or exceeds all planned federal environmental requirements. Third, increasing concern over dependence on foreign oil exacerbates regional problems in meeting electric needs. The only current alternative is an oil-fired power plant, which might consume almost 250,000 additional barrels per day by 1985. IGCC can help reduce this oil use. Fourth, changes in federal legislation (the Pacific Northwest Power Planning and Conservation Act)(PNPPC) alter the basic market for electric power and should greatly facilitate capital formation for NICES from conventional sources.

Current Status

The recent decision to expand NICES to include IGCC has naturally necessitated a full review of the basic project technical configuration and overall plan including financing. Thus while the IGCC should improve the technical and economic performance of NICES and allow PNPPC provisions to improve the access to capital for project financing, formal engineering and financial evluations are not yet available.

Current project priorities are:

- Conduct preliminary engineering analysis reflecting SNG/IGCC configuration
- Close on market requirements and contractual obligations for IGC power
- Close on new venture partners reflecting IGCC power availability to regional utilities
- Establish financial plan reflecting new venture configuration, capital requirements, and income.

Proposal to Synthetic Fuels Corporation

Obviously, no exact request for SFC support can be made until current analyses are complete. However, it is NWP's intent to ultimately solicit a loan guarantee from SFC to aid the successful capitalization of the NICES project. As the current analyses are completed, NWP will enter into negotiations to establish the exact support necessary to assure the overall success of the NICES project.

II. PROJECT DESCRIPTION

Exhibits 0.1 and 0.2 show the location and conceptual layout of the NICES projects. Brief summaries of each major NICES element are presented below. These reflect current analyses of operating configurations.

Slurry Line

The total line will be 1050 miles long. Input capacity will be 25 million tons per year. Anticipated flow will be approximately 13 million tons to the IGCC/SNG plant and 12 million tons to the line used for export.

The slurry line has two inputs, water and coal. At full capacity, the line will require 15,500 acre feet annually. NWP has conducted analyses of water supply via pipeline from the North Platte River and from deep wells to the Madison formation. Each option is technically and economically viable. The NICES configuration is extremely efficient in water use. Unit water requirements for slurry transport an less than for on site gasification. Similarly, IGCC requires less water than comparably sized coal-fired steam plants.

According to the USGS, there are estimated recoverable reserves of 23 billion tons of subbituminous coal in the Powder River Basin, mostly in the Wyodak-Anderson seam. Currently, mine-mouth prices of coal in the Powder River Basin range from $6.00 to $8.00 per ton. The strippable Powder River coal has a heating value of 8,000-9,000 Btu per pound and contains an average of 0.50 percent weight of sulfur. Typical characteristics of the Wyodak-Anderson seam are: moisture, 29.8 percent weight; volatile matter, 30.7 percent weight; fixed carbon, 33.5 percent; ash, 65 percent; sulfur, 0.5 percent; HHV 8,225 Btu/lb; Hardgrove Index, 53.

About 10 major mines are either producing or close to producing in the Powder River Basin. Each mine can be expanded quickly to produce 10-20 million tons annually. NWP would contract for a long-term supply of 10 million tons per year for the coal gasification venture.

Other companies, which would use the slurry pipeline to transport their coal to the Pacific Northwest, would contract individually for coal supplies from the Powder River Basin producers. The slurry pipeline users could also pick up coal from the Hanna, Red Desert, and Jim Bridger coal fields, which lie along the proposed slurry pipeline route to the south and west of the Powder River Basin. This system provides flexibility of supply -- the gasification venture would not depend on only one coal supplier -- and opens up markets for the unused capacity of all of the operating mines. The slurry pipeline would provide the most economical and unobtrusive mode for moving part of this vast economical energy resource to the Pacific Northwest, where it will be urgently needed.

The management of the NICES project has contacted four major companies who hold large reeserves of strippable coal in the Powder River Basin and who operate mines or are in the advanced stages of developing new mines. These four companies have indicated their interest in contracting to supply coal to the NWP gasification venture and/or to other customers of the slurry pipeline. Available supplies from these concerns far exceed the 25 million tons per year needed by the slurry pipeline. The other companies who hold major coal leases in the region almost certainly would proffer large yearly tonnages to the project.

The four companies we have contacted are Peabody Coal Company of St. Louis, Missouri; Shell Oil Company of Houston, Texas; Sunoco Development Company of Dallas, Texas; and NERCO of Portland, Oregon. We have received letters of interest from these four companies.

High-Btu Coal Gasification Plant

The SNG plant will be located near Boardman Oregon. Initial plans called for production of 250 million cubic feet per day of high-Btu gas. This will be reevaluated. The planned gasifier is the Texaco system. This process is well suited for a slurry feed and input to the IGCC electric plant. The basic configuration is an extension of a proven petroleum gasifier. Several coal demonstration facilities have been built in the U.S. and Europe. Bechtel is currently building a 1,000 ton-per-day Texaco plant (cool water) with Texaco and Southern California Edison. This facility has only an IGCC and no high-Btu gas output, but should provide a direct demonstration of technical feasibility.

The plant coal requirements will be directly met from the slurry line. High Btu gas will be fed directly into the adjacent NWP line. NWP requirements will exceed plant output.

Integrated Gasification Combined Cycle Plant

Medium-Btu gas direct from the Texaco gasifier will be processed through a gas clean-up system and fed into a combined cycle electric generation plant. The gas is first fired in a conventional combustion turbine. Hot exhaust gases are then used to raise steam for a steam turbine. Combined plant heat rate in electric generation is expected to be about 9,500 Btu/kWh compared to 9,900 Btu/kWh for a conventional base load steam plant operating at comparable levels of environmental compliance.

Full-scale plant designs are set at 1,000 MW. The NICES plant site is located near the new Boardman coal-fired generation plant of Portland General Electric. Access to the Northwest Power Pool guide via local transmission facilities is possible.

The raw gas is routed to the bottom of the gasifier where the molten ash (slag) is captured in a water-filled lock hopper. Just above the slag tap, a water tube, radiant-type heat recovery unit cools the gas to just below the ash fusion temperature. Leaving the gasifier vessel, the gas flow is split. Approximately one-half of the gas passes through a five-tube convection-type heat recovery boiler, which raises 1,500 psig saturated steam. After cooling, the gas then passes through cyclone scrubbers for particulate removal. The remaining one-half of the raw gas is routed directly to a water quench and scrubbers. In quenching the gas, the water vapor content is increased prior to shift.

Wastewater containing fly ash and unreacted carbon is sent to clarifiers, where the suspended solids are recovered and recycled to the feed slurry preparation system. By recycling unreacted carbon, overall coal conversion exceeds 99 percent. To prevent dissolved solids buildup in the recycled water streams, some of the clarifier overflow is sent to the wastewater treatment plant for eventual discharge.

Since the gasifier has high tolerance for dissolved and suspended impurities, boiler blowdown as well as stripped sour water may be used as feed slurry makeup. As a result, overall plant wastewater flows are minimized.

Slag is trapped in a water-filled lock hopper. At intervals, the lock hopper is discharged to the slag dewatering system. The slag is eventually trucked to an on-site storage area. Depending on the physical and chemical properties of the slag actually produced, sale for use as building material is possible.

Shift Conversion

After leaving the gasification section, the gas stream is subjected to a catalytic reaction to adjust the ratio of hydrogen to carbon monoxide. The raw gas coming from the gasifier quench section has an excess of water vapor. In passing through the catalytic shift reactor, some of the raw gases are converted to hydrogen. A portion of the raw gas is bypassed around the shift conversion.

As illustrated in Exhibit 0.5, the raw gas is first heated to increase reaction rate and then introduced into the fixed-bed catalytic reactor. The reaction is highly exothermic, and gases exiting the reactor pass through waste heat boilers, which generate steam at 600 psig, 150 psig, and 50 psig.

The shifted gas is then mixed with the raw gas from the waste heat boiler. In addition to hydrogen sulfide, the raw gas also contains a small amount of carbonyl sulfide (COS), which is not easily removed in an acid gas removal system. A portion of the carbonyl sulfide in the quenched raw gas is converted to hydrogen sulfide in the shift reactor.

A hydrolysis reactor is required after the shift reactor to convert most of the COS to H2S so that the acid gas removal unit can reduce the total sulfur in the synthesis gas to 0.1 ppm maximum. The hot reactor effluent gases pass through waste heat boilers to generate both 150 psig and 40 psig steam. After passing through the waste heat boilers, the gas traverses several knock-out drums and coolers prior to acid gas removal.

Acid Gas Removal

The acid gas removal system is illustrated in Exhibit 0.6. Because of requiremments for hydrogen sulfide and carbon dioxide removal, a two-stage system is used. This system also provides a high concentration, sulfur-rich gas stream that is necessary for the Claus sulfur recovery plant.

Cooled gas, free of particulates, is introduced into the bottom of a packed column absorber, where it is contacted with a lean solvent (propylene glycol dimethyl ether). Rich solvent from the bottom of the absorber is first depressurized and routed to the stripper column. Acid gases released in depressurizing are recompressed and reintroduced to the absorber.

After heating the hot, lean solvent, the rich solvent is purged of acid gases in a packed stripper column. The stripping column uses a reboiler heated by 150 psig process steam and a water-cooled overhead condenser. The sulfur-rich off-gas is routed to the Claus plant for sulfur recovery.

After passing through the sulfur removal step, the CO2 laden gas stream is contacted with a refrigerated solvent. In this second absorber, the remnant H2S is removed and CO2 is reduced to approximately 3-4 percent. These gases are purged from the solvent by depressurization and stripped with nitrogen. Clean synthesis gas is routed to the methanation reactor, still under pressure.

Methanation

Synthesis gas emerging from acid gas removal is introduced into the methanation section shown schematically in Exhibit 0.7.

The gas first passes through a zinc oxide guard reactor for removal of traces of sulfur compounds which could poison the methanation catalyst in reactors downstream. Then the gas passes through two methanation reactor stages in series. In the reactors, carbon monoxide and hydrogen combine to make methane mainly according to the reactions:

$$CO + 3H_2 \text{ --- } CH_4 + H_2O$$
$$2CO + 2H_2 \text{ --- } CH_4 + CO_2$$

The reaction is carried out with an excess of hydrogen so that the potentially toxic carbon monoxide will be consumed to extinction.

Because the methanation reactions are exothermic, heat is recovered after each stage of reaction by generation of 600 psig steam. The exit gas is then cooled to 100°F by low-level steam generations and trim coolers prior to CO_2 removal.

CO_2 Removal

Cooled methanated gas is converted to pipeline-quality SNG by removal of CO_2 using Selexol. The process configuration is identical in principle with the CO_2 removal stage in the acid gas removal section and differs only in certain operating conditions. A schematic of the CO_2 removal plant is shown in Exhibit 0.8. The CO_2 removal is vented to the atmosphere. Nitrogen from the oxygen plant is used as the stripping gas.

SNG Compression

SNG emerging from the CO_2 removal plant is compressed from approximately 500 psig to 950 psig for introduction into a pipeline. The centrifugal compressors are driven by steam generated in the methanation section.

Process Steam System

Exhibit 0.9 is the preliminary steam/condensate flow diagram.

The waste heat boilers associated with the Texaco gasifiers produce a substantial amount of 1,500 psig saturated steam. This is superheated to 925° F in a heater fired with waste gases.

The oxygen plant poses the largest motive power demand, as it contains large air and oxygen compressors. A substantial part of this power is supplied by the superheated steam from the gasifier waste heat boilers.

As mentioned previously, the shift conversion unit generates steam from waste heat to 600 psig, 150 psig, and 40 psig The acid gas removal system requires substantial amounts of 150 psig saturated steam, which comes from the shift conversion unit.

Sulfur recovery and sour water stripping consume low-pressure steam, which also comes from the shift conversion unit. Steam generated in the methanation plant approximately equals the amount required for product gas compression.

Coal-fired boilers making high-pressure superheated steam will be provided to meet steam requirements for plant startup. All steam produced in the entire process plant is condensed and returned to the de-aerator at 30 psig, 250° F. The required treated boiler feedwater makeup equals the amount of blowdown on the steam generators.

Oxygen Plant

This plant supplies 99.5 percent oxygen to the gasifiers at 850 psig pressure. The plant also produces an impure nitrogen stream, some of which is used as stripping gas in the acid gas removal sections. The remaining impure nitrogen is vented to the atmosphere. The plant is a standard facility offered by several major companies. A typical configuration is shown in Exhibit 10.

Several parallel oxygen trains are required. For each train, ambient air is filtered, then compressed in two stages using air-cooled inter- and aftercoolers. The air compressors are powered by automatic extraction-type steam turbines. After a spray cooler, the air is further cooled and carbon dioxide and water are separated from it by solidification or cooling by cold effluent nitrogen and oxygen in reversible heat exchangers. After cooling in a liquefier exchanger, the air is subjected to high-pressure and low-pressure distillation where oxygen and impure nitrogen are separated by fractionation. The oxygen product is taken from the low-pressure column and through the liquefier and reversing exchangers to the oxygen compressor. Nitrogen from the high-pressure column passes through a turbo-expander with power recovery. Oxygen compressors are powered by turbines or motors. Oxygen compression to 850 psig is carried out in several intercooled stages to hold the oxygen temperature below 270° F. The oxygen from the compressor goes to the gasifier without aftercooling or intermediate storage.

Sulfur Recovery

Sulfur recovery is based on the familiar Claus process, along with Shell SCOT tail gas cleanup, as shown in Exhibits 0.11-0.12. In the Claus plants, approximately one-third of the acid gas stream is combusted with air to produce sulfur dioxide. This stream is then mixed with the balance of the acid gas and routed through two-stage, fixed-bed reactors. The effluent vapor from each reactor is passed through a cooler and knock-out drum to recover liquid sulfur. The sulfur is stored as a liquid for eventual sale. The Shell SCOT tail gas cleanup unit further reduces the level of sulfur in the effluent gas to allow an environmentally acceptable discharge. The sulfur recovered in this system is routed back to eventual recovery through the Claus plant.

Sour Water Stripping

Wastewater containing hydrogen sulfide and ammonia, originating from the gasifier gas cooling, acid gas removal, shift conversion, and methane synthesis, is steam stripped before reuse or routing to the wastewater treatment plant. As illustrated in Exhibit 0.13, the sour condensate is first heated in the regenerative heat exchanger and then routed to the top of the tray-type column. In the column, acid gases are driven off by contact with steam produced by the reboiler at the bottom of the column. Over 90 percent sulfur removal from the water is typical. After being cooled, the water is either recycled as gasifier slurry makeup or routed to the wastewater treatment plant. Vapor exiting the top of the stripping column is cooled to remove water vapor and then routed to the sulfur recovery system. Liquid produced in the overhead condenser is combined with the raw sour water feed.

Process Cooling

Cooling towers for both facilities are the induced draft type, which have a relatively low visual profile. Overall plant makeup water requirements are minimized by using the cooling tower blowdown as process plant makeup. Also, air coolers will be used for process cooling wherever feasible.

The slurry preparation plants will crush the coal to a -14 mesh. During and after crushing, the coal will be mixed with the predetermined quantity of water to produce a slurry with a coal content of 50-55 percent (by weight). The resulting slurry will then be pumped to one of four slurry storage tanks where the slurry consistency will be checked and modified as required. Each tank will have the capacity to handle one 8-hour shift of the preparation plant's operation.

From the shift holding tanks the slurry is then transferred to the pipeline batch-holding tanks. At all preparation plants except the originating plant, batch holding tankage for upstream batches will also be installed.

Each dewatering facility is composed of slurry storage, a dewatering station, and a dewatered product storage pipe of 100 days' capacity for emergencies and load fluctuations. Likewise, the slurry tankage was selected to provide storage of pipeline delivery volumes for 3 days in the event the dewatering plant is shut down. This will permit uninterrupted operation of the pipeline independent of dewatering plant fluctuations. The dewatering system utilizes screen bowl centrifuges and/or vacuum filters, and static thickeners to produce a dewatered product with approximately 16 percent surface moisture. A conveyer system will move the dewatered coal to a working storage building. From there, the coal will be sent to the plant handling facilities. Next to each dewatering plant, a water clarification system will be installed to treat the plant effluent for use in the plants cooling system.

A typical dewatering plant is shown in Exhibit 0.16.

The slurry pipeline should present few unusual construction problems. The line must be built within maximum slopes, constraints which may require deeper than normal ditches in areas with steep slopes. The schedule has been arranged to allow two full summer working seasons to minimize winter construction. The construction techniques for slurry pipelines are the same as for other pipelines.

Most of the route of the slurry pipeline is alongside the existin NWP right of way, which would tend to increase acceptance by landowners of pipeline construction. Major right-of-way concerns will be the refusal of railroads to allow crossing of their property.

When operating at full capacity, the coal slurry pipeline system will require 15,500 acre-feet of water annually. We have considered two options for water supply. The first option would be to transport water via an auxiliary pipeline from the Green River to the North Platte. This option would retain water in Wyoming that is normally lost and put no additional requirements on the North Platte River, which has large irrigation demands. The second option would be to drill deep wells into the Madison formation.

Combined Cycle Plant

Preliminary engineering for combination IGCC/SNG designs has not yet been done for the NICES project. The IGCC technology is reasonably well developed and built upon the Texaco gasification process descibed above, and existing power generation technology.

Environmental Aspects of IGCC

Sulfur is directly removed from the fuel gas by any of several absorption systems described above. Texaco's Montibello pilot plant has shown water scrubbing can remove particulates to levels lower than EPA standards. Water injection combined with relatively low operating temperatures for conventional CTs (2000°F) also limit NOx production to very acceptable levels. The water scrubbing for particulate removal also lowers NOx output by eliminating ammonia from the fuel gas. Solid and liquid wastes are lower than for any other coal-based power plant. Make-up water is almost 60% lower than for comparable coal steam plants because of the CT first stage.

Performance

Recent studies conducted for the Electric Power Research Institute by General Electric, Westinghouse and United Technologies all indicate a scale level efficiency of 38-39% for IGCC compared to about 34% for conventional coal/steam plants. Reliability is expected to also match coal steam plant levels with CTs operating in a beseload mode. Reliability is further enhanced as plant design is modular with the ability for any one of the several CTs to be out of service, with the remaining plant continuing to operate.

Texaco gasifier experience for medium-Btu gas is continuing to grow. The Montebello pilot facility has shown good results for a broad range of conditions. Similar results habr been achieved at the larger Obershausen plant in Germany. Dow Chemical and TVA have similar facilities underway. The Cool River project should be operational in three years. This 1,000 ton/day will have 100 MW output from a Texaco gasifier IGCC. This will provide the direct technical base of experience to guide NICES development.

IV. STATUS OF PROJECT DESIGN AND ENGINEERING

No preliminary engineering results are available.

V. WATER

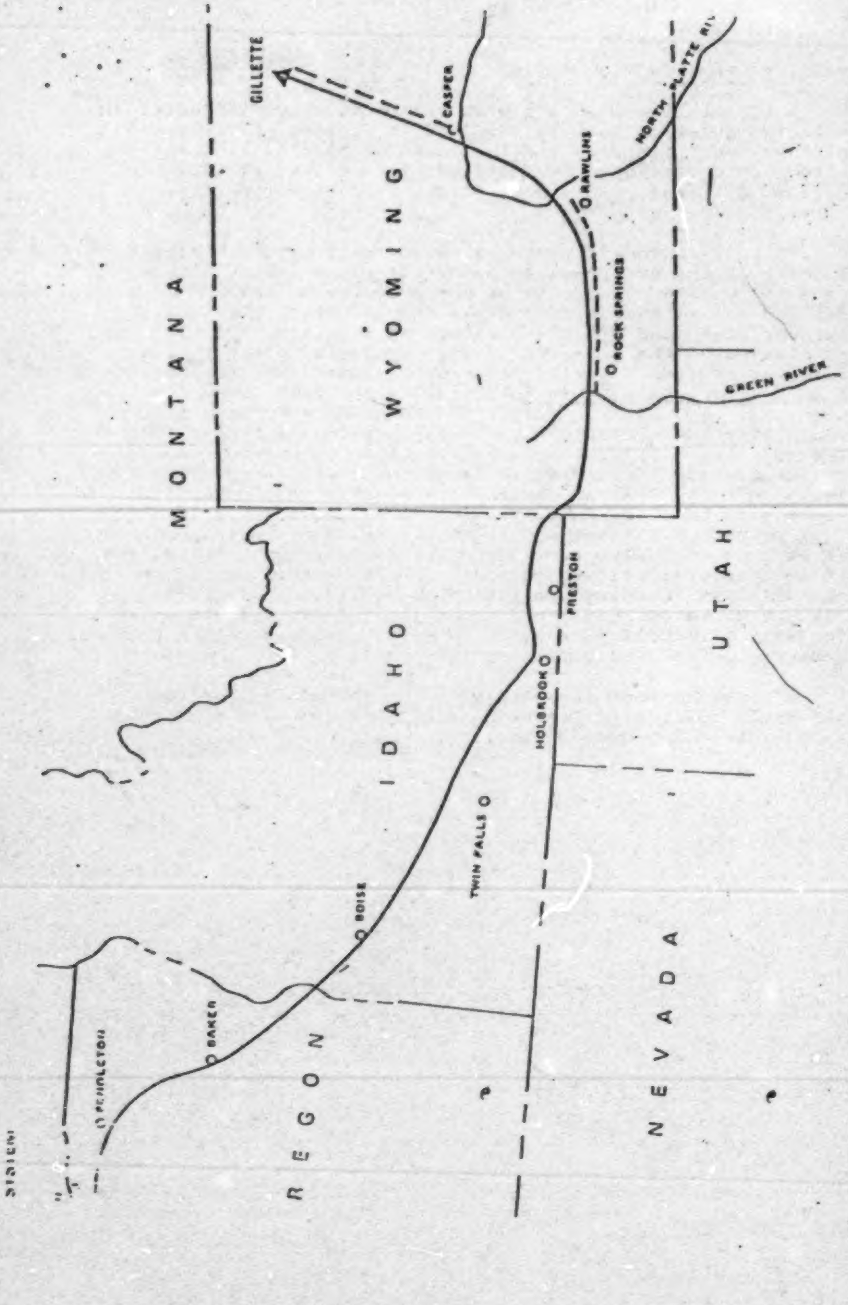
In conducting its analysis to date NWP has had a preliminary study of water avilability conducted by Hanes, Carmichael, Johnson, Gage and Speight. Slurry requirements for 25 million tons per year are 15,500 acre feet. Options considered either a feedwater pipeline from the North Platte River or deep wells into the Madison formation. Slurry transport requires about one third less water than on-site gasification on a unit basis. The IGCC requires almost 60% less water than comparable coal-fired steam power plants.

VI. FINANCIAL AND ECONOMIC PROFILE

A formal financial analysis cannot be conducted until the final configuration between SNG/IGCC is decided. Previous analyses have set the slurry pipeline cost at $1.5 billion and the 250 million cubic feet/day SNG facility without IGCC at $2.2 billion (1980 dollars). Addition of IGCC will significantly change this figure.

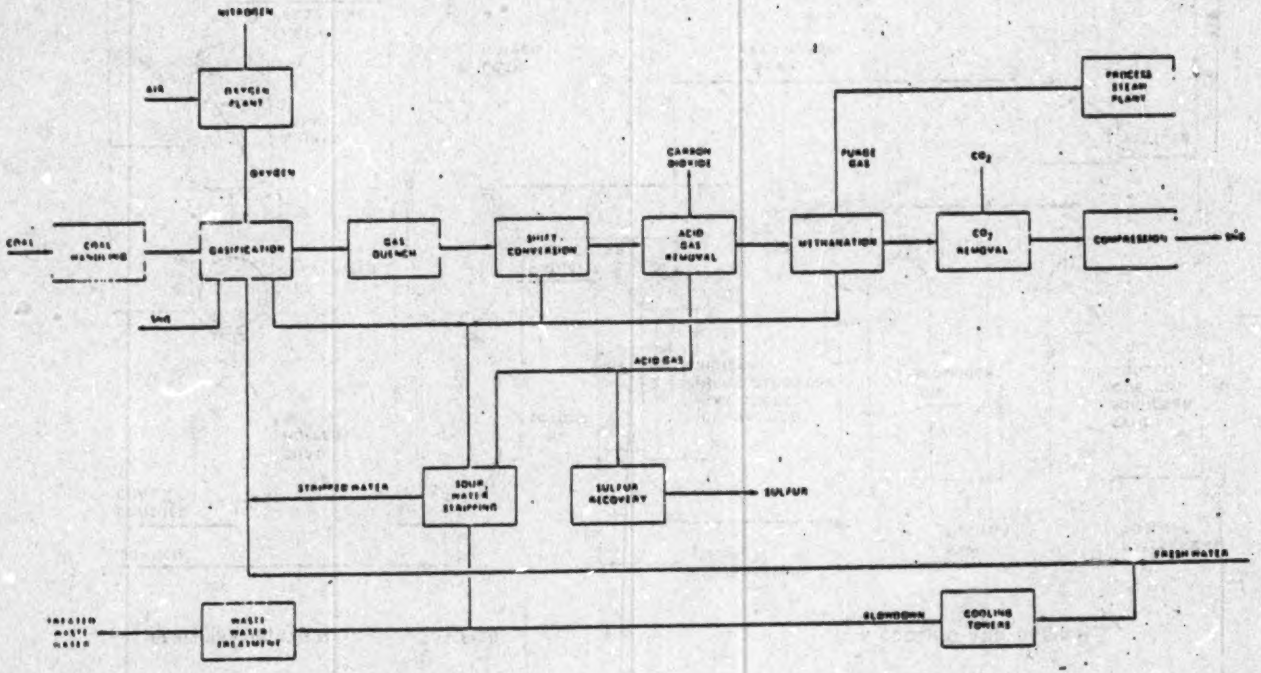
While a financial proforma cannot be prepared, several general observations are possible about the NICES income stream. First, the SNG and IGCC segments of the project can both be conducted as rate-based activities, assuming gas and electricity prices fully recover costs and provide a return on invested capital. The final resolution of the American Natural Resources Great Plains Coal Gasification Plant certification/provisional rate controversy will be a major determinant in establishing the cash flows for these segments. Second, the PNPPCA provides for the Bonneville Power Administration (BPA) to essentially serve as a broker for new power supplies. BPA is empowered to enter into requirements contracts to provide firm power to large consumers and private utilities. In turn, BPA can contract to acquire this power from new power plants built by third parties, thus providing a firm market for power. NICES intends to negotiate such a supply contract with BPA as soon as PNPPCA provisions are implemented. Third, the slurry line operating as a common carrier also generates income based on full-cost recovery and return on equity. While such income is not directly guaranteed as in gas and electric sales, the prior sale of pipeline capacity to NICES iself and other regional coal producers defacto accomplishes this goal.

A detailed cash flow analysis for the slurry portion alone, which is unaffected by the SNG/IGCC mix has been conducted by Gulf InterState Engineering Company.

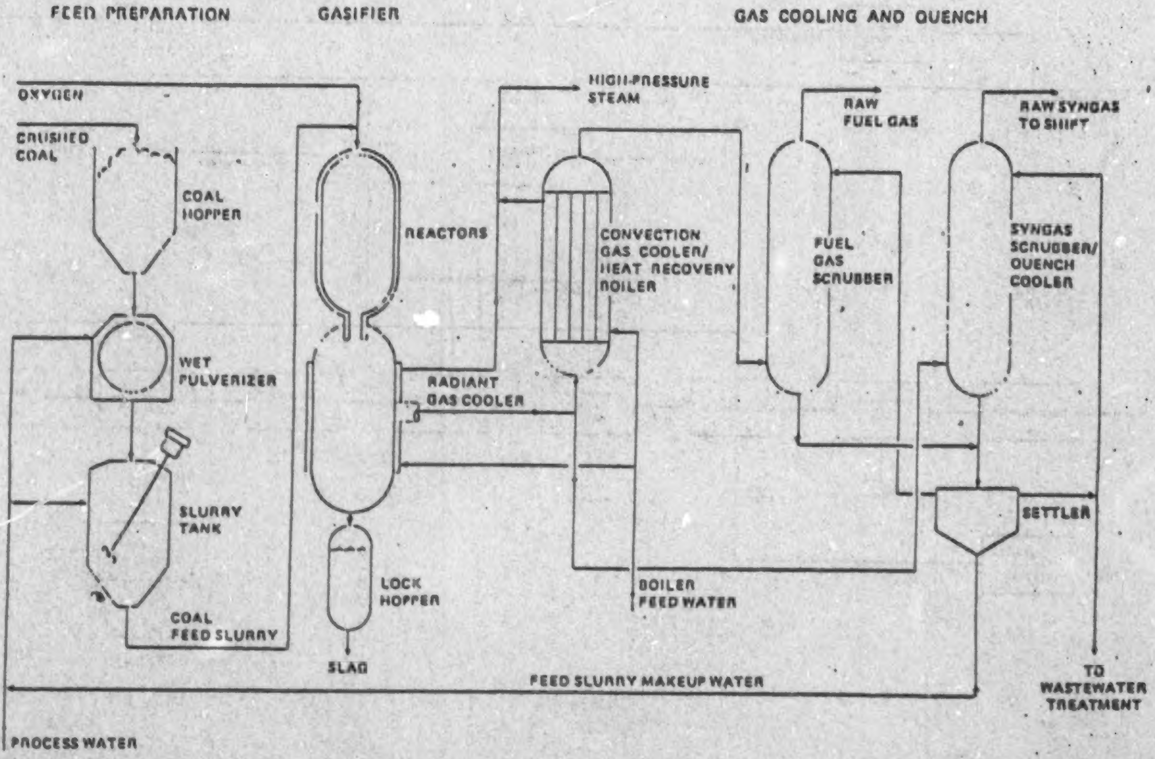

MONTANA
WYOMING
IDAHO
UTAH
NEVADA
REGON
GILLETTE
CASPER
RAWLINS
NORTH PLATTE RI
ROCK SPRINGS
GREEN RIVER
PRESTON
HOLBROOK
TWIN FALLS
BOISE
BAKER
PENDLETON
SYSTEM

Gulf I [illegible] tate Engineering Company

RE 0 3
RALL PROCESS FLOW

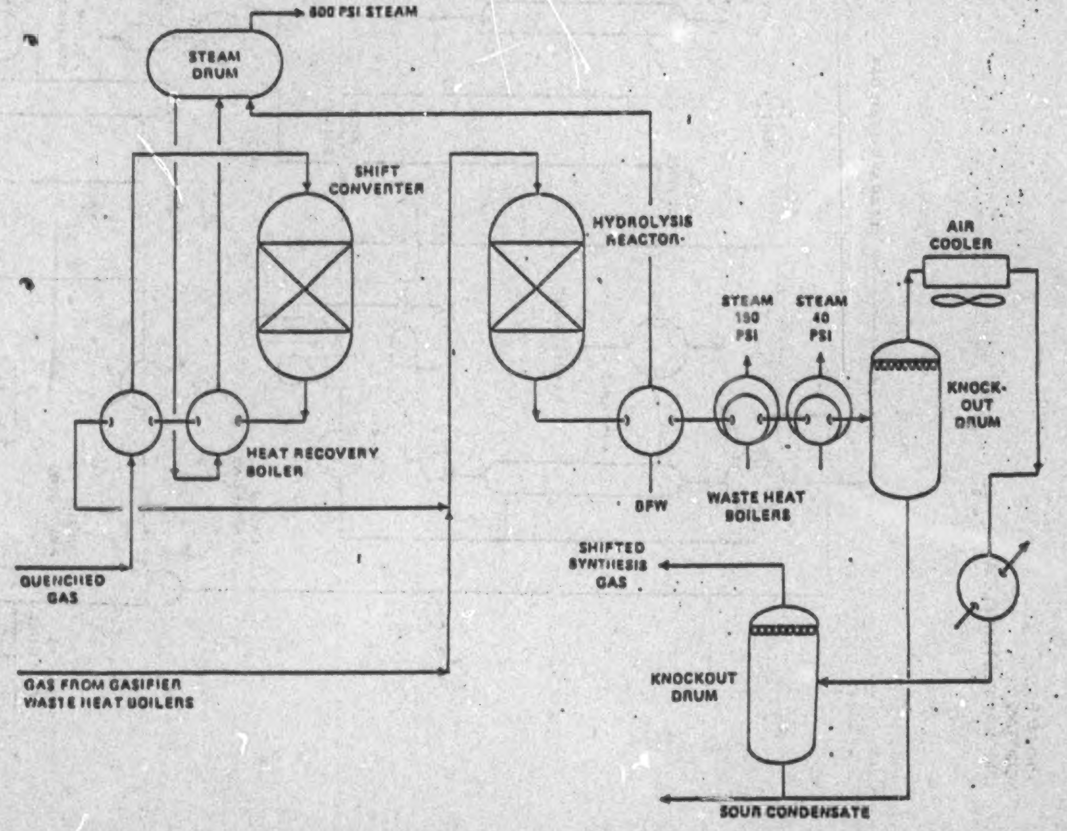

NITROGEN
AIR
OXYGEN PLANT
OXYGEN
COAL
COAL HANDLING
GASIFICATION
SAND
GAS QUENCH
SHIFT CONVERSION
CARBON DIOXIDE
ACID GAS REMOVAL
PURGE GAS
METHANATION
CO_2
CO_2 REMOVAL
PROCESS STEAM PLANT
COMPRESSION
SNG
ACID GAS
STRIPPED WATER
SOUR WATER STRIPPING
SULFUR RECOVERY
SULFUR
FRESH WATER
TREATED WASTE WATER
WASTE WATER TREATMENT
BLOWDOWN
COOLING TOWERS

IER FLOW

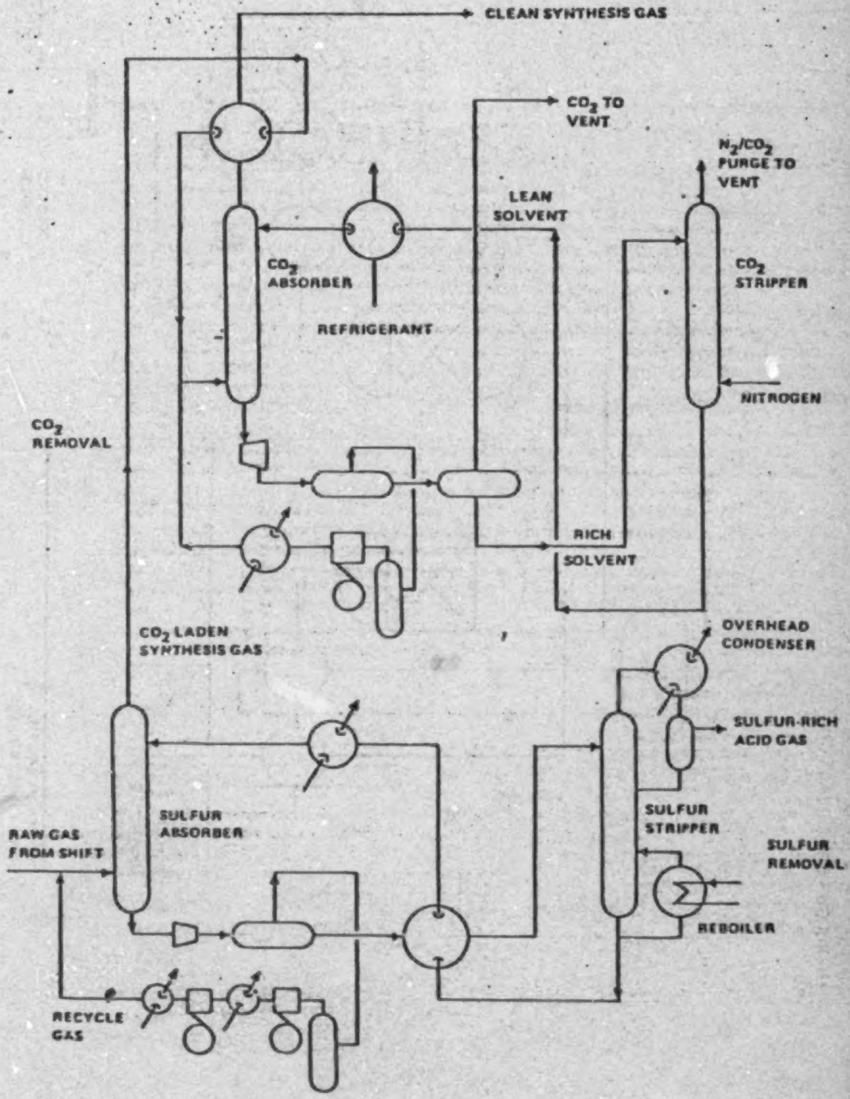

FEED PREPARATION
GASIFIER
GAS COOLING AND QUENCH
OXYGEN
CRUSHED COAL
COAL HOPPER
WET PULVERIZER
SLURRY TANK
COAL FEED SLURRY
REACTORS
RADIANT GAS COOLER
LOCK HOPPER
SLAG
HIGH-PRESSURE STEAM
CONVECTION GAS COOLER/ HEAT RECOVERY BOILER
BOILER FEED WATER
RAW FUEL GAS
FUEL GAS SCRUBBER
RAW SYNGAS TO SHIFT
SYNGAS SCRUBBER/ QUENCH COOLER
SETTLER
TO WASTEWATER TREATMENT
FEED SLURRY MAKEUP WATER
PROCESS WATER

: Bechtel

ure 9.5
NTHESIS GAS SHIFT REACTION
W


800 PSI STEAM
STEAM DRUM
SHIFT CONVERTER
HEAT RECOVERY BOILER
QUENCHED GAS
GAS FROM GASIFIER WASTE HEAT BOILERS
HYDROLYSIS REACTOR
BFW
STEAM 150 PSI
STEAM 40 PSI
WASTE HEAT BOILERS
AIR COOLER
KNOCK-OUT DRUM
SHIFTED SYNTHESIS GAS
KNOCKOUT DRUM
SOUR CONDENSATE

xhibit 0.6
CID GAS
EMOVAL SYSTEM FLOW


CLEAN SYNTHESIS GAS
CO_2 TO VENT
N_2/CO_2 PURGE TO VENT
LEAN SOLVENT
CO_2 ABSORBER
CO_2 STRIPPER
REFRIGERANT
NITROGEN
CO_2 REMOVAL
RICH SOLVENT
CO_2 LADEN SYNTHESIS GAS
OVERHEAD CONDENSER
SULFUR-RICH ACID GAS
SULFUR ABSORBER
SULFUR STRIPPER
RAW GAS FROM SHIFT
SULFUR REMOVAL
REBOILER
RECYCLE GAS

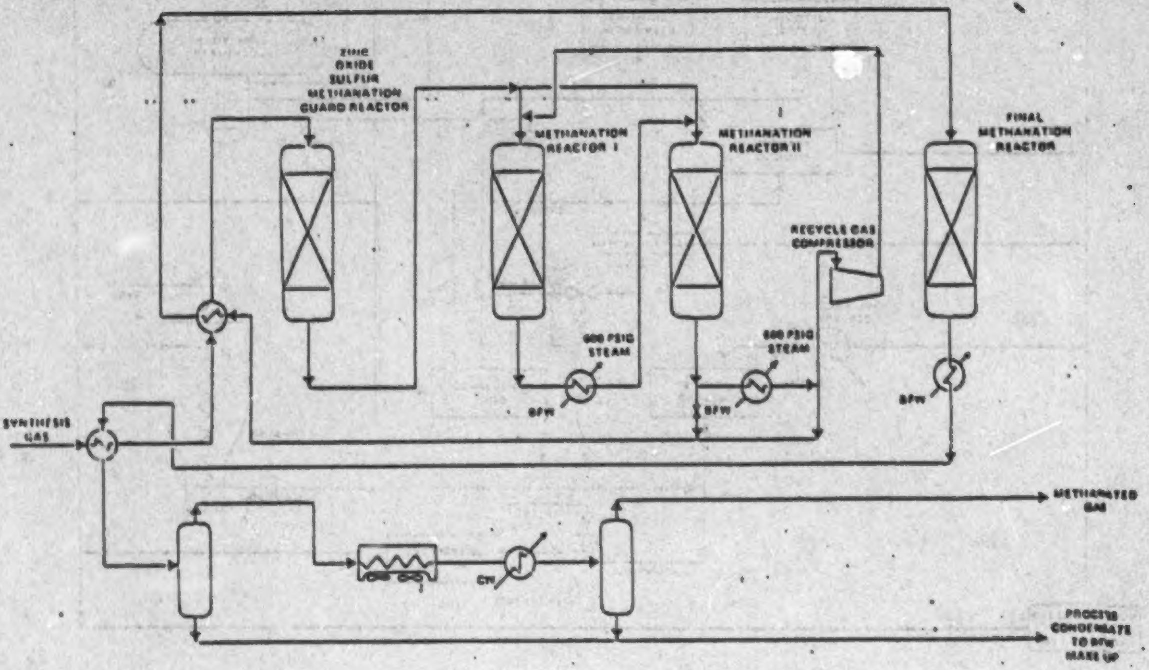

ZINC
OXIDE
SULFUR
METHANATION
GUARD REACTOR
METHANATION
REACTOR I
METHANATION
REACTOR II
FINAL
METHANATION
REACTOR
RECYCLE GAS
COMPRESSOR
600 PSIG
STEAM
BFW
600 PSIG
STEAM
BFW
BFW
SYNTHESIS
GAS
CW
METHANATED
GAS
PROCESS
CONDENSATE
TO BFW
MAKE UP

Figure 0 9
TYPICAL STEAM/CONDENSATE

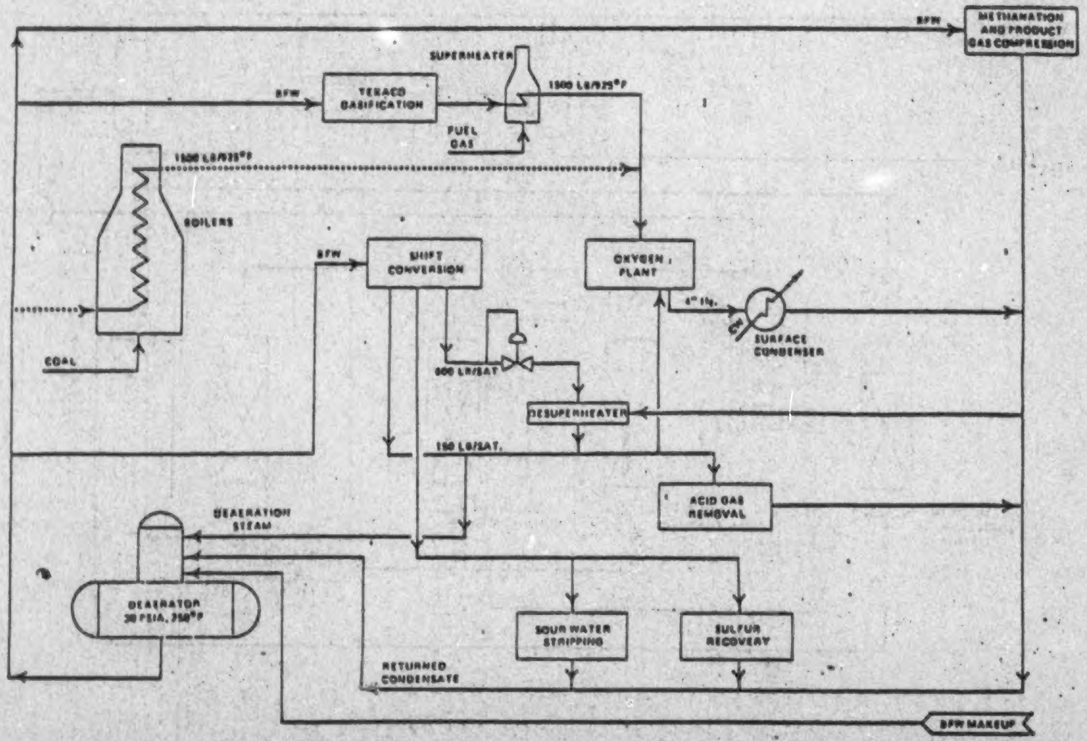

BFW
METHANATION AND PRODUCT GAS COMPRESSION
SUPERHEATER
BFW
TEXACO GASIFICATION
1500 LB/925°F
FUEL GAS
1500 LB/925°F
BOILERS
BFW
SHIFT CONVERSION
OXYGEN PLANT
4" Hg.
CW
SURFACE CONDENSER
COAL
600 LB/SAT
DESUPERHEATER
150 LB/SAT.
ACID GAS REMOVAL
DEAERATION STEAM
DEAERATOR 30 PSIA, 250°F
SOUR WATER STRIPPING
SULFUR RECOVERY
RETURNED CONDENSATE
BFW MAKEUP

Exhibit O 10
OXYGEN PLANT FLOW

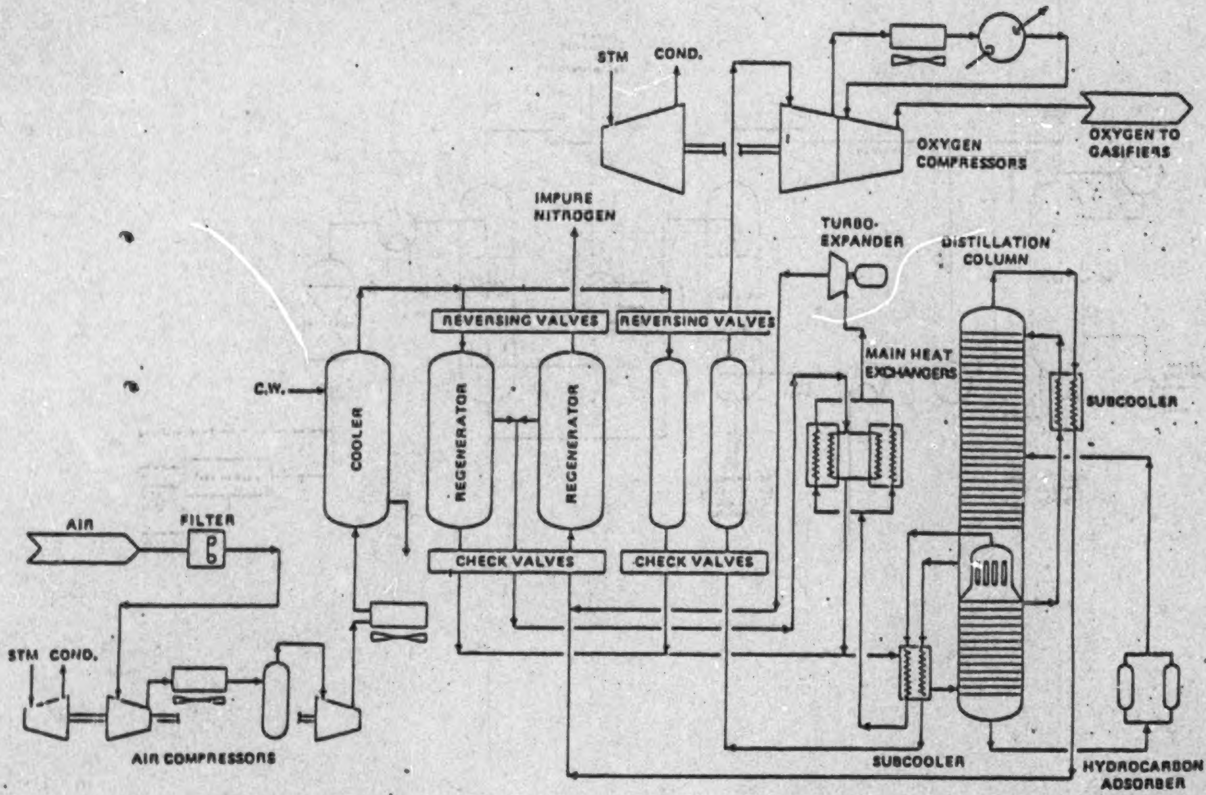
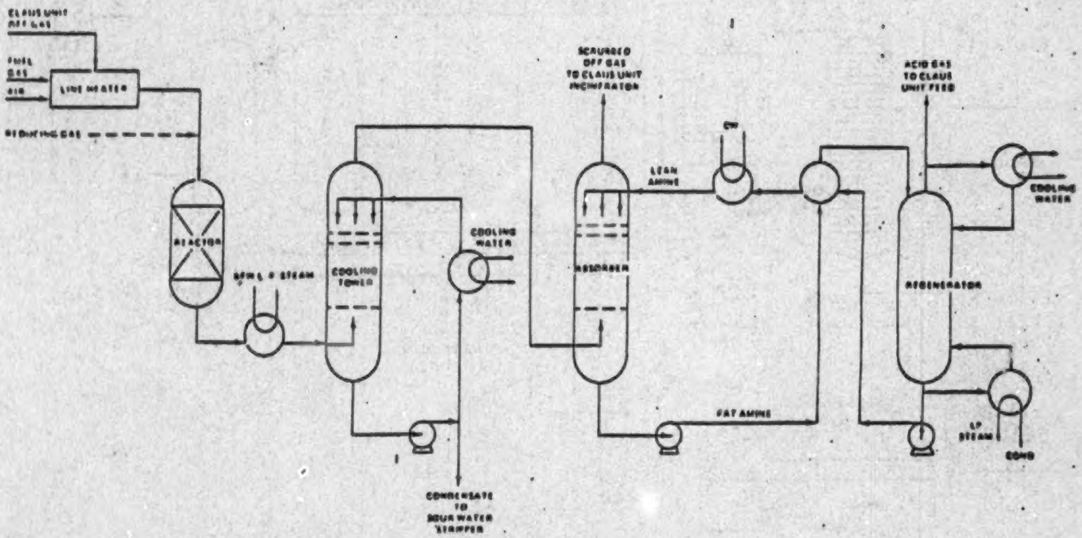
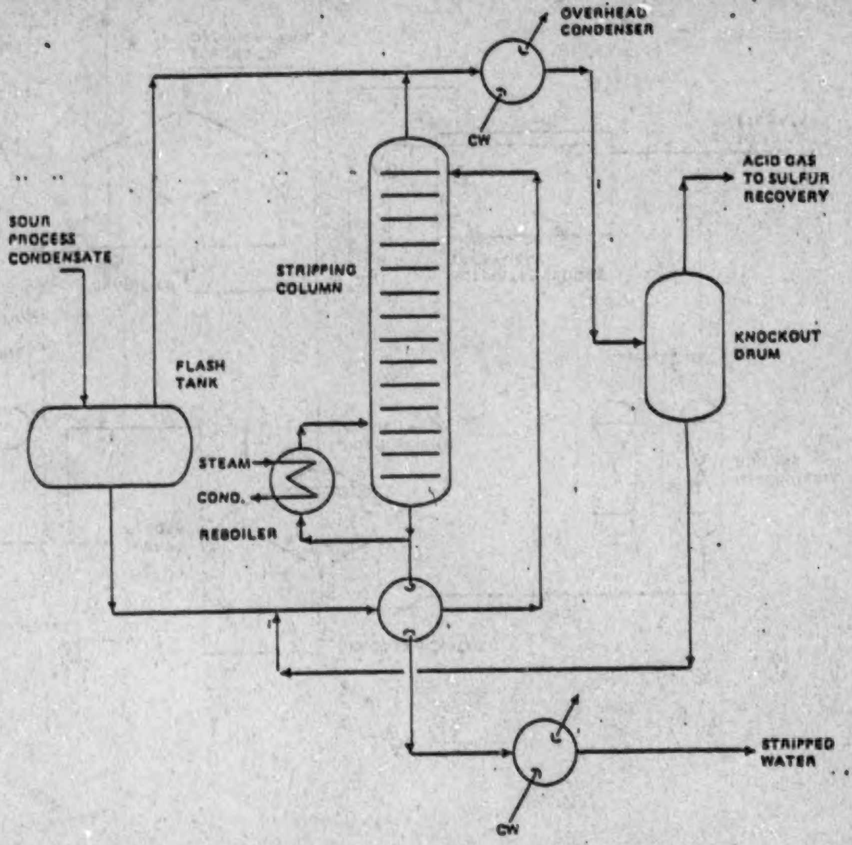

STM
COND.
OXYGEN COMPRESSORS
OXYGEN TO GASIFIERS
IMPURE NITROGEN
TURBO-EXPANDER
DISTILLATION COLUMN
REVERSING VALVES
REVERSING VALVES
MAIN HEAT EXCHANGERS
C.W.
COOLER
REGENERATOR
REGENERATOR
SUBCOOLER
AIR
FILTER
CHECK VALVES
CHECK VALVES
STM
COND.
AIR COMPRESSORS
SUBCOOLER
HYDROCARBON ADSORBER

Exhibit D.12
SHELL CLAUS OFF-GAS TREATING PROCESS
FLOW

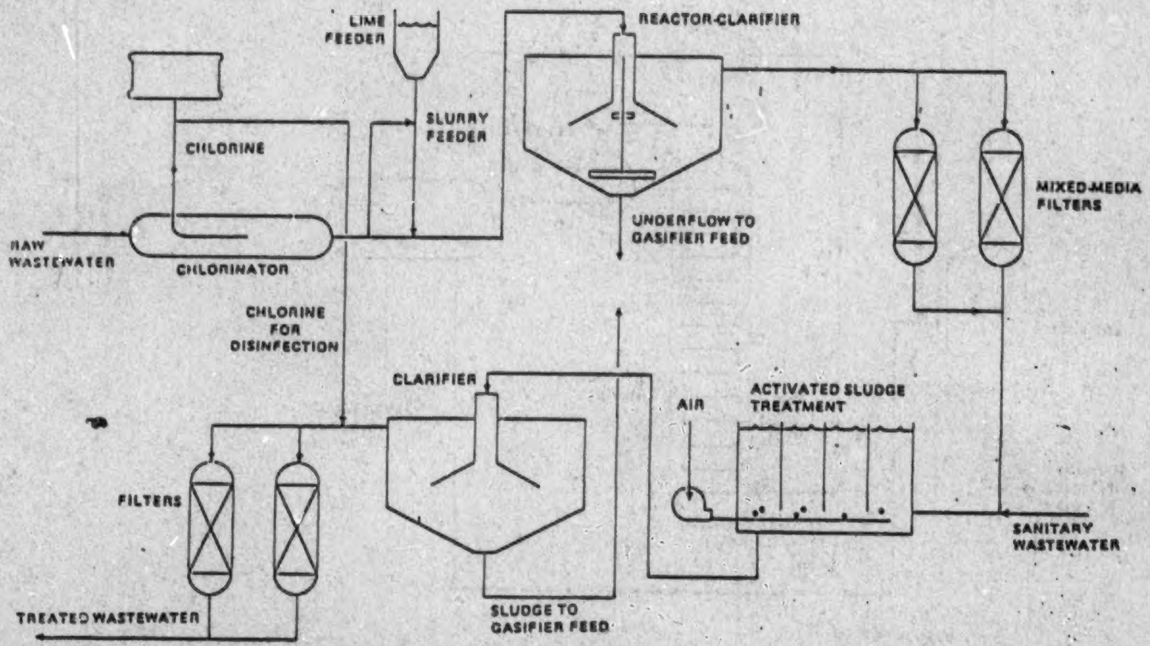

CLAUS UNIT OFF GAS
FUEL GAS
AIR
LINE HEATER
REDUCING GAS
REACTOR
BFW & LP STEAM
COOLING TOWER
COOLING WATER
CONDENSATE TO SOUR WATER STRIPPER
SCRUBBED OFF GAS TO CLAUS UNIT INCINERATOR
ABSORBER
LEAN AMINE
CW
FAT AMINE
ACID GAS TO CLAUS UNIT FEED
REGENERATOR
COOLING WATER
LP STEAM
COND

3 WATER TREATMENT

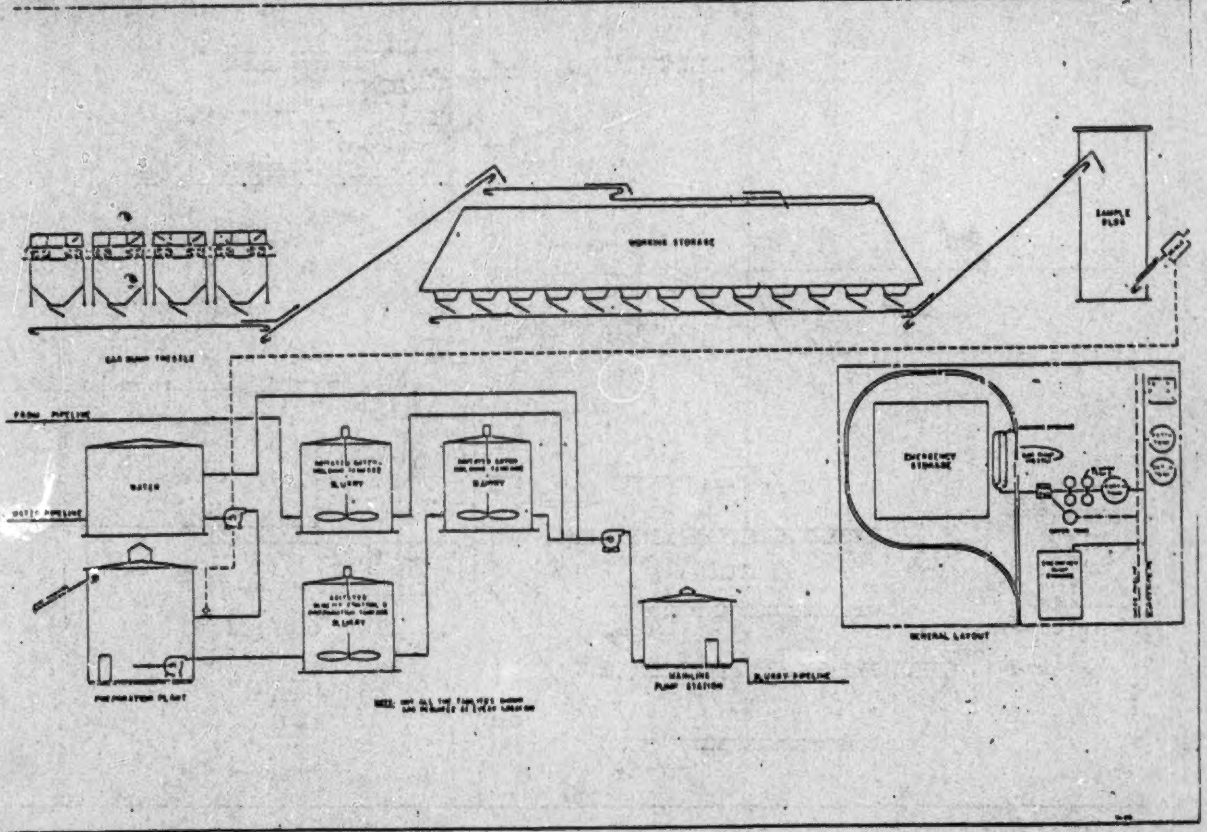

OVERHEAD CONDENSER
CW
ACID GAS TO SULFUR RECOVERY
SOUR PROCESS CONDENSATE
STRIPPING COLUMN
KNOCKOUT DRUM
FLASH TANK
STEAM
COND.
REBOILER
STRIPPED WATER
CW

Source: Bechtel

bit 0.14
CAL WASTEWATER
TMENT FACILITIES


RAW WASTEWATER
CHLORINE
CHLORINATOR
LIME FEEDER
SLURRY FEEDER
REACTOR-CLARIFIER
UNDERFLOW TO GASIFIER FEED
MIXED-MEDIA FILTERS
CHLORINE FOR DISINFECTION
CLARIFIER
AIR
ACTIVATED SLUDGE TREATMENT
SANITARY WASTEWATER
FILTERS
TREATED WASTEWATER
SLUDGE TO GASIFIER FEED

0 15
AL SLURRY PREPARATION AND
STATION FACILITY


CAR DUMP TRESTLE
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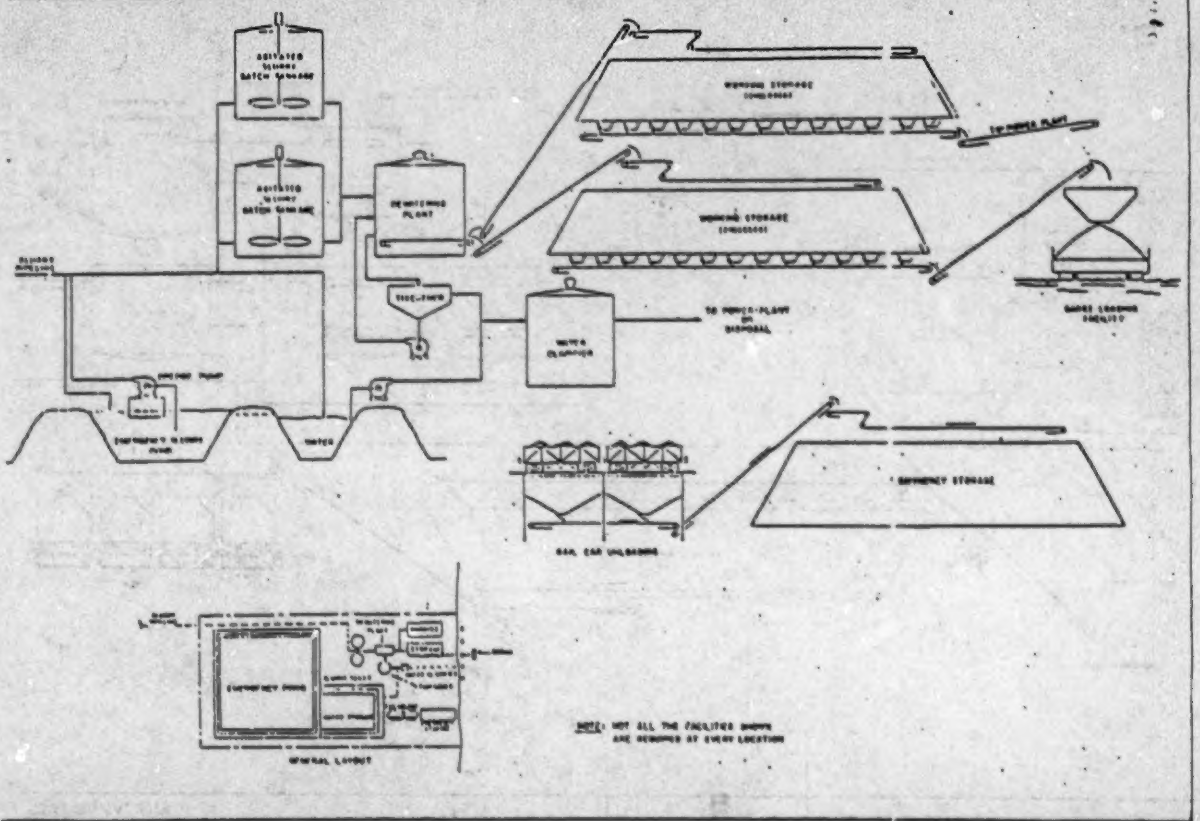
ICAL DEWATERING FACILITY


AGITATED SLURRY BATCH STORAGE
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WORKING STORAGE (COVERED)
TO POWER PLANT
BARGE LOADING FACILITY
EMERGENCY SLURRY POND
WATER
RAIL CAR UNLOADING
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EMERGENCY POND
WATER POND
GENERAL LAYOUT

NOTE: NOT ALL THE FACILITIES SHOWN ARE REQUIRED AT EVERY LOCATION

urce: Gulf Interstate Engineering Company

Senator **Wallop**. Senator Johnston?

Senator **Johnston**. I am interested in what you had to say about the *First Iowa* case which was a 1946 case.

Are you familiar with the case of *California* v. *The United States,* a 1978 case, and *Imperial Irrigation District* v. *Yellen,* which is a 1980 case? Legal scholars say they are dispositive of the issues and make very clear that Congress has the power to determine the right of water. The Supreme Court has recognized Congress authority to defer to the States in matters of water rights. Are you familiar with those cases?

Mr. **Craig**. Generally speaking, not in a working way am I familiar with this.

The **Chairman**. Which? *California* v. *The United States?*

Senator **Johnston**. *California* v. *The United States,* 438 U.S. 645, 1978. The Court sustained under section 8 of the Reclamation Act of 1902, 43 U.S.C. 383, the imposition by the State of California of some 20 conditions in a permit to appropriate water issued to the United States in response to a Federal application. These conditions seriously restricted the right to divert water in a number of ways. This was one of the cases that according to Northcutt Eli, the distinguished lawyer on water rights, caused him to conclude that, "Your section 6 would be the latest in a long line of Federal statutes spanning more than a century which have recognized State law." Two recent Supreme Court cases sustain such statutory dispositions, and he refers to those two cases.

I know our distinguished colleague from Idaho is concerned about this issue and if you read the *First Iowa* case by itself, I think it does raise some danger signals, but I think if you read these later cases, and more particularly when you hear the legal experts speak of them, I think the Congressman will be reassured. As a matter of fact, we have three distinguished experts who are going to testify in just a moment, and I would invite you to stay and listen.

Mr. **Craig**. I was thinking a few minutes ago I probably ought to testify after Mr. Clyde from Utah. Certainly there is a concern. It is not just my concern. I think it has been expressed very clearly by others. The case that is now before the Supreme Court that I cited beyond just the *First Iowa* case once again brings that test to the courts and a concern that relates to water in an interstate commerce situation, and the obvious overriding case law that exists and court decisions that exist that take that kind of right as it deals with water out of the hands of States and clearly into the hands of the Federal Government, and I think that is a clear concern in this overriding issue of coal slurry when you have movement of water from one basin to another.

Senator **Johnston**. I share the Congressman's concern, but I would hope that if you don't intend to listen to these witnesses that you check the record.

Mr. **Craig**. I certainly will. I plan to read their testimony. I am anxious to hear it.

Senator **Wallop**. Senator McClure?

The **Chairman**. I am grateful that my colleague from Louisiana mentioned the case of *California* v. *The United States,* and then defined it by identification. There is other litigation in which California has been involved as well as an earlier case of *California* v. *Arizona* that raises the second question in my mind of the case of *California* v. *Arizona* which was also one in which Mr. Ely was involved for a number of years. The litigation concerned the States on the provision of Colorado water, Colorado River water, and the State of Arizona won that lawsuit, won it resoundingly in the Supreme Court, then immediately after sought to use the water that they had thus gained by court decree by the creation of a reclamation project in the State of Arizona.

The State of Colorado said no. You may have won the lawsuit but we can whip you in the Congress, and unless you give back what you won in the lawsuit you are not going to get your water no matter how much the court may have said you are entitled to, and I guess that is part of my concern.

What is involved in this pipeline issue, there are several issues that are involved. One is the question of eminent domain which seems to have lost most of the attention as we focus more on the question of water rights and the question in the water rights is how do you protect those water rights in the legal sense, and the second one I submit is perhaps more severe, is how do you protect those water rights in the political sense?

I am concerned about the latter more than I am of either of the other questions. Right now certainly I would recognize that if a pipeline was built, there is a greater threat to State water rights than there would be in the presence of a statute, but it just may be that without a statute no pipeline will be built, and thus no threat.

Senator **Johnston**. No coal.

The **Chairman**. The coal is still there, and I understand, and that is one of the conflicts that all of us has, is how do you get that coal to the market? And I think I would think from my standpoint that moving it by pipeline is more environmentally acceptable than moving it by unit train, but at the same time the environment of my State in the southern portion of the State is totally dependent upon water—totally, not partially, not fractionally, not marginally—totally, and therefore, our concern.

Congressman Craig, I appreciate your statement. I might just draw background for those who have heard the statement of your role as a farmer and a rancher in an area of the State that doesn't have much water in which we may worry about spring floods but the August dry is much more a fact of life in terms of the ability to produce crops in the area where you live and where I live.

I think your statement has been thoughtful, and addressed itself to a number of the concerns that we have, but I really want to separate for a moment that question of the legal ability versus the political ability and the legal ability we will argue and debate, and we will try to draft that language, but my real concern for the future, not for the present, is the political ability to protect ourselves against the demand of the people who wish to share that water with us by taking it from us.

Mr. **Craig**. Senator, I really appreciate that statement because I think that my concern and your concern has been for a long time that when we look at the demands of large metropolitan areas in States that are much more heavily populated than some of our more rural Western States where we tend to have been blessed at least now with an abundance of the resource in water, and in some cases coal, and oil and gas, that it then really becomes a problem, as you have just said, of legal versus political. If you don't have the legal right in your protection, you probably won't have the political right simply because of your size, and that is a great concern, and when I look at where some of the major coal fields of the West currently are, where the major populations are that will be in great need of the energy that those coal fields can provide, and I look resting between them a State like mine who is perceived to have an abundance of water when in reality it does not, that it will become our State or States right who is caught in the middle, which could well in this kind of situation be looked upon to provide the fluid of transportation in this case, which is of real concern.

The CHAIRMAN. It is a concern of mine, and while I indicated that our current debate may be over the language of the statute, I shouldn't pass a moment to say a word of thanks to my friend from Louisiana who has recognized our concern about water and has been willing to write into this statute whatever language we can contract that will protect water, and I think that is real. It is genuine, and I for one appreciate it because it is a matter of so much concern both to the Senator from Wyoming and to the Senator from Idaho. I thank my colleague for his testimony, and I appreciate the work that you have been doing on this issue in the other body as well.

Senator WALLOP. I want to add my thanks to you and also as well to Senator Johnston for just the reasons that Senator McClure stated. I would in passing note the political threat exists with or without this legislation if you can believe the testimony and the sincerity of the people from Missouri and Iowa who testified about the use of South Dakota's exercise of their water rights. We will never get outside the other edge of that one, and I am concerned in part by the lack of an expression of Congress on these rights as well as an expression of them—I mean both of them present us with a classic legislative dilemma as to what to do.

I haven't made up my mind on the issue of eminent domain, but if it does exist, I haven't clearly made up my mind on what language ought to be, what the result of the language ought to be if it can be contrived in this legislation.

I thank you very much.

Mr. CRAIG. Thank you.

Senator WALLOP. The next witness is Hon. A. J. (Mick) Spano, a member of the House of Representatives of Colorado. Welcome, neighbor!

STATEMENT OF A. J. SPANO, MEMBER OF THE HOUSE OF REPRESENTATIVES, STATE OF COLORADO

Mr. SPANO. Thank you, Mr. Chairman. We are like the neighboring State of Wyoming. The water flows out of Colorado into other States, and we nurture our water and we very carefully have passed legislation over the last 100 years, and we respect our water law.

I am going to say something different, and that is we concur with the findings and the purpose of the act. We feel that it is necessary to facilitate the national distribution and utilization of our coal, and without the eminent domain authority, our important coal pipeline distribution systems will never be built. That's the way we feel.

Now we strongly support a finding by Congress that the eminent domain authority should be granted to facilitate the construction of these coal slurry pipelines. Now there are problems of course, that we would like to bring up now, and that is that the bill requires the Secretary of Energy to make the findings. Now that is all the bill says, that he makes the finding. We would like it even a little bit more clear that not only does he make findings, but that there are some guidelines with respect to the findings, some specific standards for review, and these standards will then enable the Secretary or his successor to then make a decision as to whether this and the coal, slurry pipeline eminent domain shall be granted or not.

We could very well have a Secretary who would be an extreme environmentalist perhaps that would never make a decision, you see, so we feel that not only should he make the findings which he could put in his pocket forever, but also he should make the determination on those findings, and absent that, an amendment to the legislation, we do believe that there should be some standard put in there.

I mentioned here that without those standards in there, that the decision could be arbitrary or capricious. OK? Now the most important aspect of the legislation from the point of view of the people of Colorado is the guarantee that the power of eminent domain will not be used to derogate the State water law. We agree with it 100 percent. That is what we really like about the law, and we want the States rights with regard to water rights to be available, and that is what you are trying to address, and you are also putting in the commerce provision. We want that provision in there, too, to specifically mention that water is not subject to the commerce provision.

Now subsection (c) of section 6 should be amended, we feel, to include the concept that nothing in the act shall alter any water rights or in any way alter any provisions of State law. You see, not only do we want the provision in there that the State law shall be protected, but it shall be protected with regard to any water rights. This is very important to us in Colorado.

Now in the preservation of the state water law, section 6(a), you have got in lines 18, 19, 21, 22, and in 6(b) you have got lines 7 and 8, the term, "found to be in the national interest." Now we feel that that term could be eliminated because not only are we interested in the pipeline, whether it is found to be in the national interest, we want any pipeline to be included so far as the preservation of the State water rights. Am I clear on that point? So it might be necessary between two States that the right of eminent domain is necessary in order to get a pipeline from one State or the other, and in some cases it would not be necessary, so it would only be as we read the act to say that only if it is found to be in the national interest. You see, that is what we want to preserve, whether it is found to be in the national interest or not.

We don't feel that the effect would be lost by eliminating that clause. Now because of the arid climate, any of the States in which slurry transportation will commence, the water that is utilized for the slurry must be accounted for. Now I want to take an extreme example. Let me use an example here. In Wyoming, if the Wyoming water was utilized to transport Wyoming coal through a coal pipeline slurry to Arizona, and that amount of water measured in Wyoming amounted to a 1,000 acre feet of water, Arizona would be required under the provisions that we would like to see, that they deduct a 1,000 acre-feet of water from its compact. Now let me go to an extreme case where Wyoming would through coal slurry deliver all of its allocation, you see. There would be none left then for the compact, so we would like to have a mechanism accounting for that water utilized in the slurry, so that Wyoming slurry water to wherever, Arizona or California or wherever, it would be accounted for in the compact use. We think that is very important.

We feel that without that, the Secretary of Energy, requiring his finding in the national interest, could be very well contested by the State's origin because of the net loss. Now let me say that, Senator Wallop, you hit the nail exactly on the point with regard to consumptive use of water. It takes about 900 acre-feet of water to transport 1 million tons of coal from one place to the next, but if we put a power generating plant let's say in the State of Wyoming, it would take anywhere from 13,000 acre-feet of water to 33,000 acre-feet of water to generate the power from that 1 million tons of coal, and we would like to see all of the powerplants in Wyoming, in Utah, and New Mexico and Kansas and wherever, and have their lines come into Colorado.

Our consumptive use of the water, of course, is higher when we have our own powerplant in Colorado than it is when we have them out of Sate. That, of course, is very important.

Now another reason why we are not mentioning water, we feel that you have done the right thing in preserving those States' rights, but we have got a salinity problem in the Colorado River, as has been mentioned. Let me point out that between Goddard and Glenwood Springs in Colorado, there is dumped into the Colorado River about 179,000 tons of salt per day, and this salt comes from underground from the Juanita Basin, and it is very saline with over 25 million acre feet of water. Now if we could use the saline water as a coal pipeline slurry medium, we would relieve the pressure, for instance, on that Colorado River and alleviate the expense of removing the salt further downstream.

We also have a situation in Colorado in the San Luis Valley where we have a closed basin and the irrigation water all runs into that closed basin and we lose about 110,000 acre-feet of water through evaporation in that closed basin each year; and in addition to that, the ground is becoming very salty and infertile and if we would use that, could use that saline water, we could then, of course, with the 110,000 rule of thumb, even 1 thousand acre-feet per 1 billion tons, that is 110 billion tons of coal per year that we could transport out of the State of Colorado, which is about four to five times as much as our production now.

We agree with you. We concur with the intent of the bill, and we would like to see some of these amendments that we have suggested.

Thank you.

[The prepared statement of Mr. Spano follows:]

COMMENTS FOR REP. A. J. SPANO CONCERNING S. 1844.

We concur with the findings and purpose of the act. It is necessary to facilitate the national distribution and utilization of coal. The lack of eminent domain authority has held up important coal pipeline distribution systems to the detriment of not only the coal producing states but also to the detriment of our economy in general.

We would strongly support a finding by the U.S. Congress that the eminent domain authority should be granted to facilitate the construction of pipelines for slurry operations. In fact, Sec. 4 of the bill requires the Secretary of the Energy Dept. to make findings that the construction of such system shall be in the national interest and this potentially cumbersome process with its attendant delay could be eliminated altogether if the eminent domain authority were to be granted directly by this legislation. Absent that amendment to legislation, we still believe that specific standards should be incorporated into the legislation to provide the necessary administrative framework to ensure that applications for eminent domain authority submitted to the Secretary of Energy shall be processed expeditiously and that there will be a specific standard for review.

Without such a specific standard for review it is in fear that the granting of the eminent domain authority will only be granted sporadically and arbitrarily.

The most important aspect of the proposed legislation from the point of view of the people of the state of Colorado is the guarantee that eminent domain power will not be used to derogate state water law. Subsection (c) of Sec. 6 should be amended to include the concept that nothing in this act shall alter any water rights or in any way alter any provision of state law.

In Preservation of State Water Law, Sec. 6(a), lines 18, 19, 21 and 22 and 6(b), lines 7 and 8, the terms (found to be in the national interest under section 4 of this act) should be struck. The use of eminent domain is necessary for those pipelines having difficulty in obtaining rights-of-way. Any interstate pipeline whether requiring eminent domain or not should be subject to this section. The

The effect of the section would not be lost. The commerce clause should also include any interestate coal pipeline distribution system.

Because of the arid climates, any of the states in which the slurry transportation will commence, the water which is utilized as the slurry medium must be accounted for and that accounting must be incorporated in this act. Since interstate water compacts are ratified by the U.S. Congress, it is appropriate that this legislation utilize as an accounting mechanism for that water utilized as a slurry medium, a credit under the interstate compacts regulating water in the West. Therefore, a new subsection (d) should be added to Sec. 6 which states something to the effect that all water utilized as a slurry medium shall be credited for purposes of interstate compacts against the sending state's compact obligation with respect to the receiving state. As an example, if Wyoming water was utilized to transport Wyoming coal through a coal slurry pipeline to Arizona and the amount of water measured at the Wyoming sending states amounted to 1,000 acre-feet of water, then Arizona should be required to deduct 1,000 acre-feet of water from its compact commitment entitlement out of the Colorado River. In practice, this would mean that with respect to the Colorado River compact, 1,000 acre-feet less of water would be required by the lower basin states to pass the boundary between the upper basin states and the lower basin states.

Without this type of accounting mechanism, it is quite likely that any request of the Secretary of Energy to make findings concerning the "national interests" would be contested by those water right owners in the states of origin, because of the net loss of water to the state of origin. Such an unfortunate result can be prevented by this amendment.

Senator WALLOP. Thank you very much, Representative Spano. Senator Johnston?

Senator JOHNSTON. Thank you, Mr. Chairman. I just want to congratulate you, Mr. Spano, on an excellent statement, and say that it appears to me that some of these concerns were taken care of by your amendments. One particularly, though, that I think is not, is the accounting amendment which seems to me to be eminently fair as the protector of water rights here. I would recommend that you take a look at it and make a determination.

Senator WALLOP. I would say as well that one of the things we want to make certain of is that whatever expression of national interest is made, in light of Senator McClure's earlier expressed concern, it does not take constructive preeminence over the protection language that is there. I think that is a well-taken point.

The CHAIRMAN. I assume that we have to have the national interest applied to the pipeline in order to grant the right of eminent domain, but I assume also that we can separate that from the water issue.

Mr. SPANO. Yes.

The CHAIRMAN. And I take it that is what you are suggesting?

Mr. SPANO. That's right.

The CHAIRMAN. I would agree with that wholeheartedly.

You have also suggested that if water is delivered, and you use the example from Colorado to California, that it be counted as a portion, as a part of the portion under the compact, and I would assume then that if such a pipeline, if such an agreement would require the affirmative action by the State of California?

Mr. SPANO. Well, Colorado, for instance, has a law—I carved the bill myself several years ago—that any water used in a slurry pipeline to another State shall be credited as part of the compact. That is part of Colorado's result.

The CHAIRMAN. I understand that, but I would note that any agreement requires agreement on the part of two people, not just agreement on the part of the State of Colorado. It also requires agreement on the part of California, would it not?

Mr. SPANO. But at the same time you have written into this bill that we shall adhere to State laws and State rights, and I am sure that Colorado wouldn't grant the authority for a pipeline.

The CHAIRMAN. Unless California agreed?

Mr. SPANO. That's right.

The CHAIRMAN. But you couldn't affect California just by saying we intend to affect California.

Mr. SPANO. That is why we want this provision in there. We want this provision in the bill.

The CHAIRMAN. It would be a useful addition with respect to any of the pipelines to require a compact between the State of origin and the State of destination.

Mr. SPANO. To get the credit, yes, sir; we want that credit. Thank you very much.

The CHAIRMAN. Thank you.

Senator WALLOP. Senator Bumpers?

Senator BUMPERS. Mr. Spano, there is only one question I wanted to ask you. In the example you give here where Wyoming ships 1,000 acre-feet of water to Arizona, water that is to be deducted from the water that Arizona might otherwise be entitled to under the Colorado River pact, then how would that apply if the coal and water were going to a State which was not a member of the compact of which Wyoming was a member?

Mr. Spano. We would like to see that language say not only to, but through any State, and let me give you an example of that. If Wyoming had to deliver water, for instance, to Texas, and it went through New Mexico, we would very well like to see New Mexico get credit for that.

The Chairman. You've got to be kidding!

Mr. Spano. No. It is all part of the compact, and what you really ought to look at is the extreme condition where you use every bit of that water.

The Chairman. I will give you an A for effort.

Senator Wallop. I will say one thing. That will take care of everybody's fears about the use of Federal domain.

Mr. Spano. I'm sure Senator Wallop would like to see that.

The Chairman. That just killed it!

Senator Bumpers. I was going to say, I've got two conclusions you have for it, but you effectively kill it with that contention.

Mr. Spano. Well, you are going to have to unwind my testimony and come out with—you make the laws. We make the suggestions.

The Chairman. Would the Senator yield?

Senator Bumpers. I'm finished.

The Chairman. Aside from that question about whether it would apply also to the States through which the pipeline ran, I would like to State at least for the record it would be my opinion at this point subject to whatever correction others may point to that the State of Colorado may well pass a law that says that it should be credited against California's consumption in that case. We might well write it into the statute here, but it could not be binding upon the State of California unless the State of California agreed.

Mr. Spano. I agree.

The Chairman. And I would think that then you might wish to withhold the permission conditioned upon California's acceptance of that provision, but I don't think we could by statute impose that burden on California without California's consent.

Mr. Spano. But you have imposed by compact a specific amount of water that should be delivered to California. You have imposed that upon us by contract.

The Chairman. We didn't impose that upon you by compact. The States agreed upon it, and the Congress approved it.

Mr. Spano. I stand corrected. That is exactly right, but nevertheless, that compact is enforced right now, and we have got to deliver that water. We would just like to have that pipeline water credited as part of that contract, and it would be the proper place.

The Chairman. The provisions of the compact would have to be if there were any change or condition upon that compact, that it would have to be agreed to by the compacting States. Congress cannot unilaterally change the effect of the compact.

Mr. Spano. At least we have given you some food for thought.

The Chairman. For which I might add I am very thankful.

Mr. Spano. Thank you.

Senator **Wallop**. Thank you very much. We appreciate it. Next we come to the panel of water legal experts which I am very much looking forward to.

The first is a friend of mine, Dean Trelease, who received a bachelor of law degree from the University of Colorado in 1938, and doctor of science and jurisprudence from the University of Wisconsin, who was from 1942 to 1977 associated with the University of Wyoming and dean of the College of Law from 1960 to 1971, and has taught as a visiting professor at a number of law schools.

He was general counsel for the Missouri Basin Survey Commission, Public Land Law Review Commission, National Water Commission, and the National Commission on Water Quality, and an associate reporter to the American Law Institute's Statement of Courts on the chapter on agrarian rights. It is very nice to see you.

Second is Gary Widman, who is counsel for Fulbright & Jaworski in Washington. He was from 1980 to 1981 Associate Solicitor of the Department of Interior, from January 1977 to June of 1980 he was professor of law at the University of California, Hastings College of Law, and from January 1974 through December of 1976 was general counsel for the Council on Environmental Quality, Washington, D.C., Mr. Clyde has already been introduced by our colleague, Senator Hatch.

Gentlemen, I appreciate your presence here and as I stated in my opening remarks, I seek no predetermined conclusion, only the best independent judgment that you can offer us.

Mr. Trelease, would you please proceed?

STATEMENT OF FRANK J. TRELEASE, PROFESSOR, McGEORGE SCHOOL OF LAW, UNIVERSITY OF THE PACIFIC, SACRAMENTO, CALIF.

Mr. **Trelease**. Thank you, Senator Wallop. I would like to say that the qualification I am most proud of is the position of my students, now my former students. One of them is the Secretary of the Interior and another is our junior Senator from Wyoming, and I also served three terms under the late great Max Abair.

I currently work at the McGeorge School of Law, University of the Pacific, and I live in California but I still enjoy being identified as from Wyoming. My formal statement is a little long, and in part of it I give a thumbnail sketch of the State water law which I think is really greatly needed in these halls. Some things are not well understood about it. I will not dwell on those in my statement here, but I would just like to point out that the Mideastern coal rush is causing a good deal of change in State water law. The legislators are taking a very considerable interest in the large water rights that are needed for the development of coal resources, and instead of leaving it to the single appointed official, are now taking an interest in the actual permit management process.

Senator **Johnston**. Would you pull the microphone up?

Mr. **Trelease**. Oh, I'm sorry, sir. For instance, Wyoming now prohibits the export of coal without the express approval of the legislature, and it has given its approval to a couple of pipelines and a tentative approval to another.

Montana has declared that the use of water for slurry to export coal from Montana is not of beneficial use, and South Dakota we have heard not only first required all large appropriations of water to be approved by the legislature, but now has created a special type of energy water right, and my point is that these laws and these policies are now in danger.

A little after the turn of the century in the case of Hudson County versus McCarter, Mr. Justice Holmes said that a State might keep to itself the natural advantages of its fresh water resources, but a few years ago a Federal court held that the State of Texas could not constitutionally prohibit the export of water to the city of Altus, Okla., and that this would be an unreasonable burden on interstate commerce, and of course, as has been mentioned here, in the case of *Sporhase* v. *Nebraska,* this matter is currently before the Supreme Court again.

My own opinion, my best guess as to what the Supreme Court will do with the Sporhase case is that they will reverse it, and that they will reaffirm the *Altus* v. *Carr* case. If that is the case, then Wyoming's requirement of legislative approval is in danger. So is the Montana provision, and large questions could be raised about South Dakota's statute. I think, therefore, that it is essential that something like section 6 of S. 1844 be enacted, something that says that the States may impose conditions and terms on coal pipeline water rights, notwithstanding the fact that they cross State lines, and something, we need something that will constitutionalize these laws, in other words, and the Supreme Court very recently said that we can do exactly this.

In the New England Power Co. case, *New England Power Company* v. *New Hampshire* decided just last February, the court held that, the actual holding was that the court may not constitutionally prohibit the exportation of hydroelectric power in the absence of authorizing Federal legislation, but section 6(b) is exactly the sort of authorizing legislation the Supreme Court did approve, and the Supreme Court put down three tests under which it might be done.

First, they said it has to be an affirmative grant of power to the States to burden commerce.

Second, it must be the intent of Congress to alter the limit of State power otherwise imposed by the commerce clause, and third, it must be an intent to modify earlier holdings of the case.

Well now, section 6 of the bill before you does exactly those three things which the Supreme Court has just recently said it may do in the regulation of commerce, turn these matters over to the State, which is exactly what we are trying to do here.

I understand it has been argued that if an interstate coal slurry pipeline were given Federal powers, then it could claim that it would be an interference with commerce to curtail its withdrawals in order to protect preexisting water rights, and that is simply nonsense. The State water right, every State water right, contains the limitation that its exercise must not injure private rights. The priority is the fence around the property that says you may not trespass on your neighbor's rights, and if a junior appropriator attempts to take water from a senior appropriator who needs it, we may cut down on the junior's right. This is not an impairment of the right. It is simply an enforcement of the other right.

Section 6(b)'s reference to the State's authority to put conditions terminating use of the water right is exactly the sort of thing that happens all the time. I also understand that it has been urged that section 6(b) is still not enough, because the Supreme Court has nullified some previous statements by Congress that looked like they were giving State laws precedence over national interest. We have heard this morning about the *First Iowa* case. Well, the *First Iowa* case is really not a very close parallel to what we have here in section 6.

The *First Iowa* case referred to the Federal Power Act, which says that the applicant for a Federal license to build a hydroelectric power plant has to submit satisfactory evidence of compliance with State laws relating to the appropriation and use of water. Well, the Supreme Court said that if the State refused to give the permit, but the application was satisfactory to the Commission, then the Commission might issue a license. Well now, nothing like that is in this bill. This bill says very clearly the United States or its creature, the pipeline, shall comply with State substantive and procedural law.

Furthermore, it would be possible I think to completely eliminate this, to do as lawyers do, and when we get a case that has an effect on our operations, draft new language to take care of that case. The language that nothing in this act shall alter in any way any provision of State law in the regulation of water was said to be ineffective in the *First Iowa* case.

Well, I would suggest perhaps that could very well be changed to say that nothing in this act shall affect in any way the validity of or preempt any provision of State law, and there you have a very clear statement that I don't think the Supreme Court could possibly change.

Another method of doing the same thing I believe would be to track the language of the Reclamation Act of 1902. You have heard the discussion of the Supreme Court's case of *California* v. *the United States* in which the court said that language means exactly what it does say, that the United States will comply with State laws relating to the appropriation and use or distribution of water. Now it seems to me too often the subject matter of section 6 is addressed under the label of States rights, and I would like to put the thought in that that is a misnomer. State law, State water law, is needed because it serves the national interest. It has been used by the Federal Government many, many times to handle all sorts of interests that are shared between the States and the Federal Government.

It can and should handle this modern objective of promoting the national distribution and utilization of coal, and section 6(b) is especially needed I think as a return to the principle of the *Hudson County* case that a State's water is a State's treasure and that a recognition by Congress that a State's interest in the distribution and use of its water resources is an important interest that Congress will protect.

These statutes are a valid and a vital means of regulating the truly explosive development of these huge energy resources and accommodating the needs of the mineral industry with the current agricultural economy of those States.

Thank you very much, sir. I appreciate it.

[The prepared statement of Mr. Trelease follows:]

BEFORE THE SENATE COMMITTEE ON ENERGY
AND NATURAL RESOURCES

HEARINGS ON S. 1844

JUNE 8, 1982

STATEMENT OF FRANK J. TRELEASE, PROFESSOR, McGEORGE SCHOOL OF LAW, UNIVERSITY OF THE PACIFIC, SACRAMENTO, CALIFORNIA.

Mr. Chairman and members of the Committee: My name is Frank J. Trelease. I am a professor at McGeorge School of Law, Sacramento, California, one of the constituent colleges of the University of the Pacific, Stockton, California. However, I still retain my connection with the University of Wyoming as Dean Emeritus of the College of Law, which I served from 1942 to 1977. I have long studied western water law, and I have been asked to give my views on Section 6 of S. 1844, the Bill before you.

In the first part of this statement I want to accentuate the positive, show why state water law is needed, how the federal government has always used state water law, how state law will control the use of water by slurry pipelines. In the second part, I try to show how this Bill will protect state law and will insure that the pipelines cannot override state law by claiming exemption on federal Constitutional grounds.

Section 6(a): The Use of State Water Law

Section 6(a) provides, "The United States or its agents, permittees, licensees, or transferees or any interstate coal pipeline . . . shall not reserve, appropriate, use, divert, dedicate, or claim water within any state for an interstate coal pipeline distribution system . . . unless such reservation, appropriation, use, diversion, dedication, or claim takes place pursuant to state substantive and procedural law."

Slurry is a mixture of coal and water, ton for ton, and any interstate coal slurry pipeline whose development will be facilitated by passage of S. 1844 will need a dependable supply of water for its operation. Water is a scarce commodity in the High Plains and Rocky Mountain States, where most of it has been appropriated under state laws that govern the diversion of water for beneficial use for domestic, agricultural, municipal, and industrial purposes. In modern times the legislatures of those states have added protections for recreation and environmental values as well, and in each state the legislature has set up planning and regulatory agencies and provided an ongoing process of controlling new uses as the need and the means for their development arise. In the current energy crunch, energy companies, using these laws, are acquiring water and water rights for coal mining, mined land reclamation, mine-mouth power plants, synthetic fuel plants, and slurry pipelines. S. 1844, however, will add a new dimension. The federal government has been asked to lend some of its power to the interstate coal pipelines in order to promote interstate commerce. If this power is granted, it could be asked whether it could be used by the pipelines to acquire water rights as well as land rights. The matter is settled by Section 6(a) which says that the state law and the state procedures shall govern the acquisition of water and water rights by interstate coal pipelines. The state law and the state agencies will insure that the interstate pipeline will fit into the existing pattern. No one desires the pipeline to attempt to seize water needed in its operations without regard to state law and in disregard of and disruption of local economic and social conditions. If a coal pipeline were to claim delegated federal commerce powers and authority to take water under federal law, that water would have to come from a western stream, reservoir or aquifer on which there already are state-created rights and state-made plans, and which farmers, ranchers, cities and energy companies are already using. Where would a federal pipeline water right fit? Inevitably it would cause great confusion among and possible loss to the current water users and would confound the state water plans.

Section 6 of S. 1844 will prevent exactly this sort of confusion and disruption. The implementation of S. 1844 hinges upon findings by the Secretary of Energy that the construction of an interstate coal pipeline distribution system shall be in the national interest. If the Secretary of Energy finds that it is in the national interest that a particular pipeline system should be constructed, it is surely in the national interest that it be built and operated with as little adverse impact as possible on the economy and lifestyle at the point of origin. That is what Section 6 is designed to accomplish. The sponsors of the Bill know that unwise and unpopular disruptions are unnecessary, that they can be avoided by handling the matter in the traditional manner. Similar problems have been handled for well over a century by using state water law to see that federal water-related programs and policies are carried out without unnecessary interference with local laws and ways. S. 1844 breaks no new ground, it carries out a long tradition of federal use of state water law to advance federal powers and programs.

The tradition began with the Mining Law of 1866, that created the legal machinery to handle the western gold rushes. Water was needed to separate the gold from the gravel, to operate the mills that crushed the hardrock ores. Federal law governed the right to mine, but the water rights were seen to be a local problem. The law provided, "Whenver, by priority of possession, rights to the use of water for mining, agricultural, manufacturing or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same . . . . " (43 U.S.C. §661.) The western appropriation system was applied to agriculture as well as mining. To clarify the land laws under which homesteaders and preemptors were settling the western public lands, Congress in 1870 added the following to this law: "All patents granted, or pre-emption or homesteads allowed, shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by the preceding section." (43 U.S.C. §661.) The Desert Land Act of 1877 provided for the sale of tracts of desert land upon the filing of a declaration that the settler intended to reclaim the land by irrigation, with the limitation, ". . . that the right to the use of water by the person so conducting the same on or to any tract of desert land . . . shall depend upon bona fide prior appropriation;

and such right shall not exceed the amount of water actually appropriated and necessarily used for the purpose of irrigation and reclamation; . . . " (43 U.S.C. §661.) The National Forest Act of 1897 continued the practice: "All waters within the boundaries of national forests may be used for domestic, mining, milling or irrigation purposes, under the laws of the state wherein such national forests are situated, or under the law of the United States and the rules and regulations established thereunder." (16 U.S.C. §481.) In this century the Taylor Grazing Act of 1934 requires the stockmen using public lands to initiate, acquire, and maintain their water rights under state law. (43 U.S.C. §315b.)

When the United States became a water user, the government itself got its water rights under state law. The first major program was the storage and distribution of irrigation water under the Reclamation Act of 1902. In carrying out that program, Section 8 of the Act directed the Secretary of the Interior to "proceed in conformity with" the laws of the states "relating to the control, appropriation, use or distribution of water used in irrigation." Supplementary programs and related acts have carried essentially the same provision. (43 U.S.C. §383.) Other agencies of the United States complied with the state law as a matter of practice. Before the existence of federal reserved rights was confirmed in Arizona v. California (373 U.S. 546, 1963) both the Forest Service and the Bureau of Land Management complied with state law in making appropriations of water needed for use on the federal lands under their jurisdiction, and the National Park Service acquired all of its water rights under state law. (Public Land Law Review Commission Water Study 171, 1969.)

I suggest that under these congressional programs state water laws have well and truly served the nation. The national programs and the state laws have combined to help the western people turn the great American desert and the trackless Rockies into the seventeen strong and prosperous western partners in today's United States of America.

Modern State Water Law

Perhaps a thumbnail sketch of modern state water law will help some to understand the need for Section 6 and will explain how the pipelines will obtain their water. Too many people still think that prior appropriation is a crude pioneer system for carving up the public domain into private property. True, the law had its origins in the California Gold Rush, when thousands of '49ers crowded the diggings at the mouths of the Sierra canyons and staked their mining claims on the streambeds and banks. They made similar claims to the water needed to wash the gold in their sluiceboxes. Since there was neither gold nor water enough for everyone, both were put on a first-come, first-served basis. Claim jumping was discouraged with Colt and Winchester. When the Great American Desert was found to be habitable, the first settler in a valley took first choice of the land and took from the stream enough water to irrigate it, the second comer had to make do out of what was left of land and water.

The courts and legislatures of the western territories and states shaped this crude self-made law into the doctrine of prior appropriation. An appropriation had to meet but one standard: it had to be for a beneficial use. Practically all of the farmers, miners, manufacturers, power companies and cities of the west met this test when they took the water, since each had a practical and wealth-producing use in mind. Each use advanced the development of the resources of the country, each was an increment toward maximization of the welfare of the people, the state and the nation. Once begun, an appropriation became a definite and identifiable piece of property, lasting as long as the beneficial use continued. Its boundaries were marked by the quantity diverted from the source, the place the diversion was made, and its date, which identified it as superior or inferior to other appropriations. This property right could be sold, and the use or place of use could be changed.

This era of self-created rights gave way to a second stage in the growth of the law of prior appropriation. Administrative law was superimposed upon property rights. In 1889 the territorial engineer of Wyoming, Elwood Mead, persuaded the pioneer framers of the state constitution to adopt state ownership of water as the basic rule. In the following year he persuaded the first Wyoming legislature to implement this concept with a permit system for initiating appropriations. No longer were rights to be created by operation of law, no longer solely at the will of the appropriator. Now the state had to concur in the decision. The appropriator had to apply for a permit to construct the works and use the water. A government agency was to decide whether there was unappropriated water for the use, dole out the share of water needed for the use, and oversee the construction of the works. Most important, this 1890 legislation declared a new policy: the state agency was to withhold the grant of a property right, and deny the application, if to grant the permit would be "contrary to the public interest." This statute became the model for most modern western water laws.

Although there are not many cases that call the public interest limitation into play, the courts have made it into a very important policy under which water use has been controlled by employing sur-prisingly modern and sophisticated economic concepts. Water officials must choose from competing projects the one that would produce the greatest net benefits, deny permits that would have very bad external effects on others, they must subordinate a single-purpose appropriation that would otherwise cut the heart out of a great multi-purpose project. In recent years legislators have embroidered on these themes; some water appropriation statutes incorporate express cost-benefit formulas, several others identify specific recreational, fish, wildlife, and environmental values that must be considered or guarded. Modern water planning processes can be integrated with the permit procedure and provide policy guidelines for determining the public interest.

After the permit is granted the appropriator must complete his works and apply the water to the beneficial use, at which time the permit is replaced with a certificate of appropriation that evidences the permanent water right.

As each appropriator was awarded a water right, the supply of inexpensive, easily obtainable water might not be enough for a later appropriator. Obviously, the best uses of water did not always arise first and get the earliest rights, so it may become necessary to reallocate the water. Since farmers have the earlier rights, the use and place of use may have to be changed from irrigation, often of low-value crops, to industrial and municipal uses that will produce greater wealth or command greater income.

The institutions that evolved for reallocating water were the transferable property right and the market. In theory, the process was much like the reallocation of rights in land. A farmer has a fee simple title to his land, running "to him and his heirs forever," but when an encroaching city makes the land more valuable for residences than for crops, a subdivider, who will get greater value from the land than the farmer, will offer the farmer a price that will compensate him for his lost farm income and give him enough profit to induce him to sell. Although the "land right" lasts forever, the land use is flexible and can meet new and changing demands.

The process is much the same for water. A permanent, stable water right guarantees the farmer irrigation water, but if the water would be more productive in a slurry pipeline or synthetic fuel plant, a transfer of the water to the new use can be made by a sale of the right. The property right ensures that the gainers pay the losers; it does not prevent the reallocation of the resource. The state takes a hand in making a decision to reallocate water just as it does in the original allocation.

The state not only allocates water rights, it protects and enforces them. The law of priority keeps the junior appropriator from trespassing on the senior's property, and the states have officials and machinery for enforcing priority and other restrictions on the exercise of water rights. A junior ditch will be closed when the prior appropriator needs the water. In the groundwater area enforcement is more complex, and pumpers are held to limits of safe yield, total withdrawals and permissible drawdown.

The new "coal rush" to the Northern High Plains has caused some modification of this system. It has brought tremendous changes to what were farm and ranch communities, to the regional economy, even to the topography of the country. The states have reacted to this sudden upheaval with new mining laws, mined land reclamation laws, tax laws, boom town laws, and water laws. The impact of coal development in the states has been so great that the legislatures have been unwilling to leave "the public interest" to the few appointed state officials who administer the water laws. The allocation of the remaining small stores of unappropriated water to coal, the reallocation of water from irrigation of farms and ranches to the production, use and transportation of coal will bring such major transformations in the economy and society of the states that the legislatures have taken a hand in determining where the public interest lies, how the water should be used, what protections the state must have from boom and bust, what conditions are needed to insure orderly development and prevent disastrous disruption of their economies and lifestyles.

We already have several examples of these laws, and can expect more. Wyoming, in the same law that gave the ETSI pipeline its water rights, prohibited the export of water by others without express approval of the legislature. (Wyo. Stat. §41-3-115.) Such approval was given another pipeline on condition it works out a contract to make water available for other uses. (Wyo. Stat. 41-2-301.)

The Montana legislature tried another tack and declared, "A use of water for slurry to export coal from Montana is not a beneficial use," and prohibited transfers of large quantities of water from agricultural to industrial use (Mont. Code §§85-2-102(2), 85-2-402(3)). South Dakota first required all appropriations of more than 10,000 acre feet per year to be approved by the legislature, and now has created a special type of water right for energy development and empowered a state conservancy district to negotiate contracts for the protection and enhancement of other local interests. (S.D. Comp. Laws §46-5-20.1.)

Section 6(b): Protection of State Water Law

I think it clear that Section 6(a) of S. 1844 requires the pipelines to use state water law when acquiring the water rights and water supplies needed to convert coal to slurry. Yet there are some areas where state law must yield to federal law and federal powers. In our federal system the state law can run up against limits the constitution places on state action, a state may not, for instance, impose an unreasonable burden on interstate commerce. Suspicion is immediately aroused by state laws that restrict the products of natural resources from passing out of the state of origin into another state. Natural gas has been a favorite target for such legislation, several states have tried to keep the use of their gas resources within their borders, but these have been uniformly held to be unconstitutional restraints on commerce. What of water? For a while it appeared that water might be an exception. Near the turn of the century, the Supreme Court held in Hudson County Water Co. v. McCarter (209 U.S. 349, 1908) that a New Jersey statute which forbade the exportation of fresh water for use in another state was constitutional. Mr. Justice Holmes said for the Court, "The constitutional power of the state to insist that its natural advantages shall remain unimpaired by its citizens is not dependent upon a nice estimate of the extent of present use or speculation as to future needs . . . [The state] finds itself in possession of what all will admit to be a great public good, and what it has it may keep and give to no one a reason for its will."

More recently, in *City of Altus* v. *Carr* (255 F.Supp. 828, aff'd. per curiam 385 U.S. 35, 1966) a federal court held that Texas could not constitutionally pass a law that prohibited the transport of groundwater outside the boundaries of the state without the specific authorization of the Texas legislature. The court relied on the natural gas cases and glossed over *Hudson County*, and the United States Supreme Court affirmed the case on appeal, without, however, writing an opinion. Today the question is again before the Supreme Court in a case from Nebraska, *State* v. *Sporhase*, (305 N.W.2d 614, 1981). The Nebraska statute prohibits the transfer of water across a state law without a special type of permit. The Nebraska Supreme Court ruled that this was not a burden on interstate commerce because Nebraska groundwater is not "an article of commerce." The Supreme Court has heard oral argument in the case and we must await that final and imminent decision.

My prediction, however, is that *Sporhase* will be reversed and *Altus* will be reaffirmed. The Nebraska court's opinion relies heavily on how Nebraska treats water in the ground and regulates water rights, and upon the differences between these laws and Texas water laws. These do not seem decisive, there are many old cases which hold that once water is severed from the ground it becomes personal property, and I don't know of any cases which have held that any other substance or thing moving from one place to another place across a state line is not an article of commerce.

There are several straws in the wind that support my prediction. In the Altus case the losing party had an automatic right of appeal to the Supreme Court of the United States. Probably because the case did not appear as important as many others before it, the Supreme Court gave the Altus case short shrift, but I do not believe it would have affirmed a case that practically ignored one of its own precedents unless it seemed quite obvious that Hudson County was outmoded and practically overruled by the natural gas cases. Secondly, the Supreme Court does not ordinarily agree to hear a case like Sporhase unless there is at least a strong suspicion that the prior decision was wrong. Most important, perhaps, is the statement by the United States Supreme Court in a very recent case, decided only last February, New England Power Co. v. New Hampshire (102 S.Ct. 1096, 1982): "Our cases consistently have held that Commerce Clause of the Constitution, Art. I, §8, cl. 3, precludes a state from mandating that its residents be given a preferred right of access over out-of-state consumers to natural resources located within its borders or to the products derived therefrom." It seems very difficult to square this rule with the Sporhase restraints on out-of-state use.

If Sporhase is reversed and Altus is reaffirmed, then Altus is the law. A state restraint on transport of water out of the state is invalid and unenforceable. Wyoming's requirement that the legislature approve an export of water will fall with the similar Texas provision in Altus and the Nebraska law in Sporhase. I believe Montana's "non-beneficial use" statute is on its face a burden on interstate commerce, since it allows intrastate slurry pipelines but not interstate lines. I think the basis on which South Dakota got large concessions from ETSI would be lost. The lock is off the gate, as matters now stand, the states are powerless to stop, to condition, to control the use of water of interstate pipelines.

That is, in the absence of Section 6(b). It is to reverse the Altus rule and these results that 6(b) is enacted:

> "Pursuant to the Commerce Clause in Art. I, §8 of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions terminating use, on permits or authorizations for the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system found to be in the national interest under §4 of this Act shall be determined pursuant to state law notwithstanding any transportation use or disposal of such water in interstate commerce."

If this statutory language is passed, it seems inescapable to conclude that these statutes will become "constitutionalized."

That Congress may leave such matters to the state is made clear by the recent New England Power Co. case, supra, in which Chief Justice Burger held, for a unanimous court, that a state may not constitutionally prohibit the exportation of hydroelectric energy produced within its borders by a federally-licensed power plant, in the absence of authorizing federal legislation. The Court said, "It is indeed well settled that Congress may use its powers under the Commerce Clause to [confer] upon the states an ability to restrict the flow of interstate commerce that they would not otherwise enjoy." The Court sets out three tests for determining whether Congress has in fact authorized the state impose such restrictions: (1) Is the legislation an affirmative grant of power to the states to burden interstate commerce in a manner which would not otherwise be permissible? (2) Does the legislative history or language of the statute evince a congressional intent to alter the limits of state power otherwise imposed by the Commerce Clause? (3) Does the history or the law show an intent to modify the earlier holdings of the Court concerning the limits of state authority to restrain interstate trade? Section 6(b) of S. 1844 clearly is such an express grant, it clearly shows an intent to enlarge state power and to eliminate the effect of the Altus case.

Protection of Existing Rights

The interstate commerce argument has taken one form that requires some explanation. It is apparently feared by some that if a slurry pipeline has once been given authority to take water from a source, its withdrawals could not be thereafter curtailed to protect pre-existing water uses, on the theory that the pipeline's "rights" could not be "impaired" by state-imposed restrictions because those restrictions would interfere with interstate commerce. This is an unfounded fear, one that stems from an imperfect understanding of state water law. The law of prior appropriation makes each water right, as it is granted, subject to existing rights. On a stream where there are two users but summer flows will supply only one, the junior's ditch will be shut to insure that the water will flow down to the senior ditch. This does not "impair" the junior right, it is a built-in limitation on it. If the junior kept drawing water he would be stealing the property of the senior. In an aquifer the situation is the same, but in a more complex setting. It is as if several appropriators are pumping from a lake in which the lake level must be maintained. The water rights will be limited to the inflow, and if the inflow drops to the point where there is only enough for the senior, the junior pump must be shut down even though both pumpers can physically continue. In a groundwater aquifer the lake is invisible and the inflow (recharge) less easily measured, but it may still be necessary to regulate and curtail the junior's operations.

Every junior appropriator must evaluate the risk that the source may be insufficient to supply his needs in addition to the needs of prior appropriators. In the groundwater situation the laws protecting the prior appropriator apply not only to the physical availability of water but also its economic availability. The Wyoming statute (§41-3-933) makes it an express condition of each permit and appropriation that the right of the appropriator does not include the right to have the water level or artesian pressure maintained at any level higher than required for maximum beneficial use of the water in the source. A farmer with a prior right cannot insist that the water level stay exactly the same, because if there could be no drawdown, the first appropriator would take the cream, there would be none for others and most of the source would be wasted. But if a junior appropriator with a "greater economic reach," such as a synfuels plant or a pipeline were to lower the water table so deep that the farmer could not afford to pump water for the crops he grew, then maximum beneficial use would not be maintained. The larger, more economically powerful junior would have to curtail operations or seek another source. (Colorado Springs v. Bender, 366 P.2d 552, 1961.) The South Dakota statute is similar, but more detailed. (Compiled Laws, §46-6-6.1.)

Where the aquifer is relatively undeveloped and unexplored, it may not be desirable to simply issue a permit, wait and see if harm occurs, then bring a lawsuit to enforce these laws. It may be necessary to place conditions on the permits and water rights themselves, provisions preventing harm from occurring, providing that in certain contingencies pumping may be restrained and even terminated. These are not "restraints on commerce," they are limits inherent in the water right, the fence around the property that prevents encroachments on the neighbors' property.

Even the United States can be subject to these laws and conditions that enforce priorities and protect senior appropriators. In Ickes v. Fox (300 U.S. 82, 1937) the Supreme Court held that the Secretary of the Interior could be sued to enjoin him from cutting back the rights of irrigators on one unit of a Bureau of Reclamation project to benefit water users under a later extension of the project. On remand (Fox v. Ickes, 137 F.2d 30, D.C. Cir. 1943, cert. den. 320 U.S. 792), the Court held that the Secretary "must deliver the available water according to the priorities among the different users which are established by the state." If the United States can be bound by priority, certainly a private agency which has only been lent the federal power of eminent domain can be so bound.

The Sufficiency of the Section 6 Protections

I understand it has been urged that Section 6(b) of S. 1844 is still not enough, that although Congress wants to use state water law, wants to preserve the states' control of water use, the desired result is almost impossible to achieve. It is argued that in spite of Section (b) the Supreme Court may say that federal law controls and overrides state law. It is true that at one time the Supreme Court did listen to arguments that Congress has given too much control over water to the states and undid congressional intent in several laws by construing away somewhat similar savings clauses, using the most strained and technical rules of construction. For example, under Section 9(b) of the Federal Power Act the applicant must submit "satisfactory evidence that the applicant has complied with the requirements of the laws of the state . . . with respect to the appropriation, diversion and use of water . . . . " In First Iowa Hydro-Electric Cooperative v. FPC (328 U.S. 152, 1946), the state of Iowa refused to approve a project that clearly violated state law, the Supreme Court, in an amazingly free-handed construction of these words, held that they meant only that the applicant need submit evidence satisfactory to the commission of steps taken to secure state approval, and that actual compliance was required only with those laws that the commission considered appropriate to effectuate the purposes of a federal license. Clearly Congress had intended a dual control, that projects should be licensed only if approved by both nation and state. The Court, however, wrote the states out of the partnership. Similarly, the Court in 1963 ruled that the words of Section 8 of the Reclamation Act of 1902, "the Secretary of the Interior . . . shall proceed in conformity . . . with the laws of any state or territory relating to the control, appropriation, use or distribution of water used in irrigation," meant nothing more than that the United States will pay if the Secretary takes a citizen's property. "The effect of Section 8 in such a case," said the Supreme Court, "is to leave to state law the definition of the property interests, if any, for which compensation must be made." A recent case, California v. United States, (438 U.S. 645, 1978), has set the record straight as far as Reclamation law goes, and in an opinion by Mr. Justice Rehnquist the Court labeled this statement as dictum and disavowed it, ruling that the Secretary was indeed required to comply with state law and defer to the substance, as well as the form of state water law, at least to the extent that Congress has not issued directives clearly inconsistent with conditions imposed by the state. Section (b) of this Bill makes it clear that there are no such directives in this case. And Section 6 is itself so clear as to leave no room for a turnabout construction as in First Iowa.

Possible Amendments or Improvements

I have no doubt that Secton 6 is sufficiently clear to accomplish the goals of insuring that state law will govern the acquisition and use of water rights by interstate slurry pipelines and will not be preempted by federal law. If suggestions for further clarification are desired, I might offer a few additions.

Section 6(a) twice contains a list of methods of acquiring water: "reserve, appropriate, use, divert, dedicate or claim." Most of these words apply to the initial creation of a water right. But as is well-known, a great deal of water in the west is already appropriated and a pipeline company might find that to take its place at the foot of the priority list would not give it the needed amount of water with sufficient certainty of always receiving a supply. Under these circumstances a water right with an early priority can be purchased from an irrigation farmer and the use of the right can be changed from agriculture to energy production or transportation purposes. All states have procedures for transferring water rights and rules that protect other water users from being injured by a transfer. Section 4(c) of S. 1844 already prohibits the pipelines from using eminent domain to acquire water rights. To insure that these procedures and laws are applicable, I would add to this list, after the word "divert," the words "purchase, transfer,".

To allay fears that the Supreme Court may not give the intended meaning to this Section it might be thought wise to track the language of the Reclamation Act, which was upheld and enforced in the recent case of California v. United States, supra. In that case the Court emphatically said that the Secretary of the Interior must obtain water for projects "in strict conformity with state law." The last clause of Section 6(a) might be amended to read, ". . . unless such reservation, appropriation, use, diversion, purchase, transfer, dedication, or claim takes place pursuant to and in compliance with state substantive and procedural law relating to the control, appropriation, use or distribution of water and the protection and enforcement of water rights."

This language adds the "protection and enforcement" words to the description of the state laws to be followed. In this same vein, I believe Section 6(b)'s description of permissible terms on water rights could be improved by eliminating the words "including terms or conditions terminating use" and substituting the words "including terms and conditions for protecting rights of other appropriators and enforcing the laws of priority."

Conclusion

Too often the subject of Section 6 of S. 1844 is addressed under the label of "States' Rights". I think states' rights is a misnomer, a misleading and erroneous designation. In my opinion Section 6 is demonstrably in the national interest. By much the same token, I think that Section 6 should not be characterized as "deference to state water law," but rather it should be seen to be the employment of state law to accomplish a national objective in the most effective way. State water law has done this in the past, for many programs, and I believe that today, in the same way, it can handle this modern objective of promoting the national distribution and utilization of coal.

Section 6(b) is designed to bring about a return to Hudson County v. McCarter, to the principle that a state's water is a state treasure, to recognition that the state interest in the disposition and use of its water resources is an important interest that Congress will respect. By this subsection, Congress recognizes that the state water statutes we are concerned with are not merely a forbidden attempt "to advance simple economic protectionism" but a valid and vital means of regulating the explosive development of these huge energy resources and planning the orderly transition of the local economy and society from agriculture and ranching to mineral extraction.

Senator **Wallop**. Thank you very much, sir. I appreciate it. What I would intend to do is to go right on through and have Mr. Widman testify, and then we will ask questions after the panel has concluded.

STATEMENT OF GARY L. WIDMAN, COUNSEL, FULBRIGHT & JAWORSKI

Mr. **Widman**. Senator Wallop, thank you very much for the honor of your invitation to speak to you today. When your staff spoke to me about this, they framed my task in terms of three general questions. One asked the question whether it would be constitutionally proper for your legislation to protect State water rights and to prevent the implication of any new Federal water rights; and two, I was asked to suggest language that might accomplish that purpose; and three, I was asked to spot any other related questions which might bear on your deliberations. So I have organized my paper along those lines.

As for the first question, on the constitutional issue, I agree with virtually all of what Frank Trelease has said. The commerce clause certainly is the critical part of the problem, and it affects your problem in several different ways.

First, it may raise questions about the burden on interstate commerce. Two, it lies at the heart of the navigational servitude, which is sometimes used to set aside State legislation. Third, it could be combined with the property clause to create some implied Federal rights. So, to the extent that you can deal with the commerce clause, you will have taken care of a good share of the problem.

In looking at *First Iowa* and similar cases where Federal supremacy was asserted, and protected by the judiciary, I agree that you will find that they represent very different examples of congressional intent and very different congressional schemes. The important point of difference, and, the one that should be reflected both in the language of the statute and the report, it seems to me, is the very clear intent that where a State water law provides that there will either be no water right or there will be only a limited water right available, and that in turn it conflicts with the overall scheme or the overall success of the pipeline project, then that State water right must nevertheless prevail. There is no comparable legislative history behind the legislation in the *First Iowa* case. When one looks at the interstate commerce cases, one can find numerous recent examples where the courts had an opportunity to assert Federal supremacy over a nonuniform system established by individual States, but because Congress indicated quite explicitly that it did not want the uniform Federal system, but preferred instead to have the nonuniform State system, the courts did effectuate Federal intent and did protect the individual State systems. It is really a matter of articulating congressional intent more than having the court simply assert uniform Federal rules irrespective of your intent.

In the case of the property clause, we find the same sort of thing. In the end, it is the purpose of a reservation of land, or a Federal property interest, that determines whether a water right will be implied along with that reservation, and that purpose is determined, again, by the explicit congressional intent. By making that intent as explicit as you have, it seems to me that you will be able to effectively protect State water rights.

Some of the related issues are the following. One, of course, is the question of the constitutionality of the antiexport laws of the States, which is now being determined in the *Sporhase* case in the U.S. Supreme Court. I think some people expected that decision would be out by this time. It should be out very soon, and you may want to consider the rationale of that decision when it is released.

If the Court upholds the constitutionality of the antiexport laws, there will be very little problem. If it strikes the law, and says it is unconstitutional on interstate commerce grounds, you would have the power to overrule that legislation. "Reconstitutionalize" I gather is Frank's term for that. But if the decision is placed on some other ground, that is, if the antiexport law is stricken or some other constitutional basis, then you may very well need to tailor your legislation accordingly.

Another point that occurs to me is that the language delegating the eminent domain power for the interstate coal pipeline system is not as clear as it might be on the question of whether eminent domain can be used for rights-of-way for the transport of water, and for other types of utilities and secondary services. Again, that is an issue you may wish to pursue.

I have suggested some language that would remove ambiguity that I see in the phrase "pursuant to State water law." I think that is a circular term. State water law, in appropriate cases, must recognize Federal reserved rights. One has to be quite careful about using that term, and I have suggested some alternatives which will avoid that pitfall.

Some of the language proposed by Senator Wallop seems to deal with a slightly different question. That is, the statements about not using Federal water in a pipeline, as opposed to the problem of limiting the implication of Federal water rights. It seems to me those are two very different points. If one is concerned about the first one, you may also want to consider that there are ways in which Federal water, or water that has some Federal interest, may not be directly used in the pipeline, but the result will be quite similar to what would happen if it were.

One example that I give is the case where water is being put to use for irrigation purposes, and under State law is purchased by a pipeline company and put into a pipeline. It is then replaced by Federal irrigation project water. While that Federal project did not directly supply the pipeline, the effects of the transaction are similar to cases, where it would.

Similar problems could arise with Indian reservations. While its constitutionality remains to be tested, the practice has developed of waiving Indian reserved rights in return for compensation, thereby making more water available downstream. If that were to happen here, of course, it would not be the reserved right that would be used in the pipeline, but in any case the effect of the transaction would be the same. Whether or not that is a problem for you, I am not sure, but you may want to consider it.

We have already heard an allusion to the problems of potential impact on water quality at the downstream end of the pipeline. If that is a problem, I have proposed language to take care of it.

I did also detect the possibility which I labeled—and perhaps this is too strong a term—"potential abuse" of the section 6 provision. If a State which is not at either the upstream or the downstream terminals of the pipeline were to pass a law which prevented the import of water, it might thereby attempt to exert some sort of veto power over the pipeline through the use of the water laws. You may or may not regard that as a legitimate use of section 6. Again, I have proposed language for you, if you feel that is a problem.

Numerous times today we have heard reference to the problems of interstate allocation. That is the fear that if one State is allowed to supply water to the pipeline, the provisions protecting the State water law allow unlimited water resources to go into that pipeline, at the expense of those downstream States who would otherwise receive the water. Again, I think that problem can be avoided through language which I have proposed. That I think concludes my presentation.

I will be happy to answer questions.

[The prepared statement of Mr. Widman follows.]

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GARY L. WIDMAN
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STATEMENT
of
GARY L. WIDMAN

Before the Senate Committee
On Energy and Natural Resources
Hearing on S. 1844
June 8, 1982

I. Introduction

Mr. Chairman, I am Gary Widman, with the Washington office of Fulbright & Jaworski. In the past, I have worked with water law matters at the Department of the Interior, where I was an Associate Solicitor, and before that, I taught water law at the University of California's Hastings College of the Law, and at the University of Denver College of Law.

I greatly appreciate the invitation to speak to you today, and to offer my views on several points of western water law. Specifically, you have asked:

1) If legislation delegates to private parties an eminent domain power to acquire pipeline rights of way, can that law, at the same time, prevent the creation or implication of new federal interests in water used in those pipelines?

2) If the answer to that question is yes, what statutory language is most likely to be effective?

3) Are there related issues that the Committee should consider in its deliberations on water law matters?

II. Summary: Constitutionality of Limits on the Creation of Federal Rights in Water.

The water-short western states are understandably concerned by the prospects of new federal legislation that might either remove usable water from their borders, or upset carefully structured systems of water allocation under state laws and interstate compacts. These concerns arise from a history of judicial decisions that for a time seemed to read federal supremacy over state water law systems into legislation, which on first reading, suggested that the states might have had greater control. Perhaps the two most controversial cases were City of Tacoma v. Taxpayers of Tacoma, 357 U.S. 320 (1958) and First Iowa Hydro-Electric Cooperative v. Federal Power Commission, 328 U.S. 152 (1946). In both cases, statutory language gave the states some role, but state water rights and state law systems were overridden by contrary federal positions, because the Court reasoned that comprehensive federal designs required federal pre-eminence when state-federal conflicts arose.

In spite of that segment of judicial history, it is my opinion that the Congress can write legislation limiting the water used in slurry pipelines to that acquired and owned under state law, and prevent the creation or implication of new federal interests in water.

III. Interstate Commerce Clause

The Commerce Clause lies at the heart of several concepts that are critically important for your task. It is this clause that has been used to set aside state legislation where interstate commerce has been restricted or "burdened" by state regulation, or where legislation of different states resulted in nonuniform regulations or structures for some facet of interstate commerce. That clause is also the Constitutional foundation of the "navigational servitude," a shorthand term for an aggregation of federal powers and privileges that has sometimes overturned conflicting state water law. And finally, the Commerce Clause has been teamed with the more important "Property Clause" (see below) as a legal basis for the federal reserved rights that may cut off junior appropriations under the law.

But, as the following comments will illustrate, the courts have read the clause to support Congressional designs in the regulation and control in defined areas of commerce, whatever those designs might entail, insofar as the Congressional goals are articulated in the legislation. It is not a provision designed to impose uniform, or federal regulation on an area of commerce, when that would be contrary to the purposes of a Congress that has examined a subject and legislated accordingly.

Under the Commerce Clause of the Constitution, (Art. I, Sec. 8, cl. 3) Congress has plenary power to regulate interstate commerce. It is empowered to determine whether the interests of the nation are better served by uniform federal regulation, or by nonuniform or more restrictive state control. The United States Supreme Court has recently reconfirmed that Congress may "confer upon the States an ability to restrict the flow of interstate commerce that they would not otherwise enjoy." Lewis v. BT Investment Managers, Inc., 447 U.S. 27, 44 (1980). This is true notwithstanding the fact that the Commerce Clause contains an implied limitation on the power of the States to burden interstate commerce. See Cooley v. Board of Wardens, 53 U.S. 299 (1852). For, "if Congress ordains that the States may freely regulate an aspect of interstate commerce, any action taken by a State within the scope of the congressional authorization is rendered invulnerable to Commerce Clause challenge." Western & Southern Life Insurance Co. v. State Board of Equalization, 451 U.S. 648, 652-3, (1981) [emphasis added]. Also see New England Power Co. v. New Hampshire, ___ U.S. ___, 102 S.Ct. 1096, 17 L.Ed.2d 188, (1982).

The Supreme Court has also taken these positions in cases raising highly controversial water law issues. For example, after a comprehensive review of the history of Reclamation Act provisions protecting state water law, the

Supreme Court held that the legislative intent behind the Reclamation Act required a federal project to take its water rights as qualified and limited by state law, except where state law conflicted with "clear congressional directives." See California v. United States, 438 U.S. 645 (1978). But the Court's qualification of its deference to state law actually strengthens the view that it is Congressional intent, not federal supremacy, that is to be the controlling principle.

The Supreme Court's recent views in California v. United States are consistent with that Court's observations on a similar point several decades earlier. At that time, in its landmark Reclamation Act decision in United States v. Gerlach Livestock Co., 339 U.S. 725 (1950), it observed that Congress had deferred to state law, even though federal legislation could have pre-empted state law if Congress had chosen to exercise its full power over interstate commerce.

> We cannot disagree with claimants' contention that in undertaking these Friant projects and implementing the work as carried forward by the Reclamation Bureau, Congress proceeded on the basis of full recognition of water rights having reached existence under state law. Id. at 734.
>
> Whether Congress could have chosen to take claimants' rights by the exercise of its dominant navigation servitude is immaterial. By directing the Secretary to proceed under the Reclamation Act of 1902, Congress elected not "to in any way interfere with the laws of any State . . . relative to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder." Id. at 739.

> We cannot twist these words into an election on the part of Congress under its navigation power to take such water rights without compensation. ***We conclude that, whether required to do so or not, Congress elected to recognize any state-created rights and to take them under its power of eminent domain. Id.

Finally, Justice Douglas stated (concurring in part and dissenting in part),

> I conclude that Congress by Section 8 of the Reclamation Act agreed to pay (though not required to do so by the Constitution) for water rights acquired under state law in navigable as well as nonnavigable streams. Id. at 761.

The Supreme Court's 1980 decision in Imperial Irrigation District v. Yellen, 447 U.S. 352 further reinforces the view that Congressional deference to state water law will be given effect. In that case, the Court interpreted the Boulder Canyon Project Act to require the Secretary of Interior to respect rights previously perfected under state water law, and to view those rights as limitations on powers which the Act might otherwise confer on the Secretary.

These recent Supreme Court decisions make it clear that, if the legislation is properly fashioned, Congress can defer to state water law, or can determine that the national interest is better served by a nonuniform system of state water laws than by a uniform or pre-emptive system of federal law, and the Commerce Clause will uphold those articulated Congressional policies.

IV. Property Power

In some instances, when courts implied or defined federal water rights, they relied in part on the Property Clause of the Constitution. (Art. IV, Sec. 3, cl. 2). In considering possible bases for unintended judicial inferences of federal interests in water, this clause must be considered along with the Commerce Clause.

It has long been established that when the federal government withdraws or reserves land from the public domain for a federal purpose, it also reserves surface and ground water by implication, to the extent necessary to accomplish the purpose of the withdrawal. This implied federal "reserved right" in water vests on the date of withdrawal and is superior to the rights of future appropriators under state law. Cappaert v. United States, 426 U.S. 128, 138 (1976).

This implied reservation of water rights derives both from the Commerce Clause, permitting federal regulation of navigable waters, and the Property Clause, permitting federal regulation of the public lands. Id. Though originally applied to Indian reservations, [see Winters v. United States, 207 U.S. 564 (1908)], the doctrine has since been extended to other public lands withdrawn by the federal government. Cappaert, 426 U.S. at 138.

In application, the doctrine only allows reservation of that amount of water necessary to fulfill the essential (not the secondary) purposes of the withdrawal. United States v. New Mexico, 438 U.S. 696, 702 (1978).

In determining whether a reserved water right is to implied from withdrawal of public land, the issue is whether the government intended to reserve unappropriated water at the time of the withdrawal. Cappaert, 426 U.S. at 139. Once again, Congressional intent determines the extent of federal water rights, if any, that may be implied from federal legislation. And again, if the Congress is sufficiently explicit in negating intent to imply or reserve federal water rights, then the Property Clause will support that explicit Congressional goal. [For other examples of Congressional recognition of state authority over water rights, see Hearings on S. 1275 before the Subcommittee on Irrigation and Reclamation of the Senate Committee on Interior and Insular Affairs, 88th Cong., 2nd Sess. 302-310 (1964)(Appendix B, supplementary material submitted by Senator Kuchel).]

V. Related Problems

A. Constitutionality of State Anti-Export Laws

In a case now pending, the Supreme Court is considering the constitutionality of state restrictions on the export of water. State ex rel Douglas v. Sporhase, 208 Neb. 703, 305 N.W.2d 614, jur. noted sub nom. Sporhase v. Nebraska, ___ U.S. ___, 102 S.Ct. 631 (1981)(No. 81-613, 1981 Term.). The very early cases upheld such restrictions [*see* *Hudson County Water Co.* v. *McCarter*, 209 U.S. 349 (1908)], but more recently, the Supreme Court affirmed *per curiam* a lower court decision holding such a restriction unconstitutional. *City of Altus* v. *Carr*, 255 F. Supp. 828 (W.D. Tex.) *aff'd. per curiam*, 385 U.S. 35 (1966). The Court will no doubt decide the *Sporhase* case within the few weeks remaining in this court term, and the implications of the decision should be considered in preparing the final drafts of your bill and reports.

If the Court takes the more traditional position that such restrictions are constitutional, it will have minimal impact on your legislative effort. If, however, the Court takes the position that state laws restricting exports of water are unconstitutional in whole or in part, your work may be made somewhat more complex. Depending on the Court's reasoning, and on the constitutional basis for its decision, you may need to consider several courses of action. If the invalidation rests entirely on the Commerce Clause, then Congress may choose to reverse the Court's position (for water used in pipelines) through legislation explicitly framed for that purpose. But in the less likely event that the decision rests in part on the theory that the state anti-export laws take property without compensation, or on other constitutional theories, then very different issues may be raised.

One cannot be specific until the decision is released, but the point here is that your Committee may need to consider the implications of Sporhase in order to create a legislative design that protects state water rights, and state policies restricting export of water in slurry pipelines.

B. Eminent Domain Authority for Rights of Way

As it is now written, Section 4(c) of S.1844 uses the term "rights of way" in its delegation of eminent domain power. One question likely to be raised by the present language, is whether rights of way for the transport of water, (as well as for other service or secondary purposes such as utilities services, service roads, etc.), are to be acquired through this eminent domain delegation. That section's use of the term "interstate coal pipeline distribution system" could be read as authorizing eminent domain for all rights of way necessary to the "system," even though there may not be a pipeline physically located on the right of way.

Some, but not all of the states, now allow private condemnation for rights of way for the transport of water. See 4 Waters and Water Rights, section 303.1 (R. Clark ed. 1972). This fact may in turn raise other questions on reading Section 4(c)(2), (as now drafted) since use of these state eminent domain statutes might arguably be restricted by that Section's broad language restricting the "exercise of the power of eminent domain" to acquire any right to "use" water.

Whether your intent is to grant eminent domain power for these rights of way for water or for other secondary or service purposes, or to simply limit the power to condemn rights of way for the actual pipeline, you may wish to address the point in the record, and to make the necessary modifications in the statutory language.

C. "Pursuant to" State Law

Section 6(a) and Senator Wallop's floor statement refer to acts acquiring interests in water that take place "pursuant to" state law. The phrase "pursuant to" is arguably ambiguous and circular, since state courts, and therefore "state law," must recognize federal reserved rights and other federal water interests in appropriate cases. Therefore, if your intent is to limit the pipelines to water rights created and owned under state law, you may wish to use language saying just that, rather than use the phrase "pursuant to" state law.

D. Limits on Federal Reserved Rights

Senator Wallop's proposed amendment preventing the use of Federal reserved right water in the pipelines indirectly raises questions about possible related transactions involving federal project water and federal reserved rights.

For example, it is possible that a pipeline company could acquire state-created rights from a private party, who in turn would replace some of the water sold with federal reclamation project water. No federal project water would be used in the pipeline, but demand for federal project water would be increased, as much as if it had gone directly into the pipeline.

Similarly, an Indian tribe might accept payment for an agreement to refrain from using its reserved rights, thereby making more water available for downstream use in a pipeline. Again, the reserved right is not used in the pipeline, but in many ways the effect of the transaction is the same as if it were.

These two examples suggest that consideration might be given to the possibility that federal water rights created by other federal actions, could at least be substituted for private state-created rights used in the system. These may not be problems at all, and may indeed be desirable. But if they do appear to raise problems, a partial remedy for the first problem would be a requirement that slurry pipeline water demands not be considered in benefit-cost analyses and justifications of pending and future federal water projects.

On these points, I only wish to call your attention to possible implications of the proposed statutory language for federal rights other than those created by this legislation, and for potential transactions involving those rights.

E. "Receiving State" Water Quality Law

Questions may be raised about unintended implications of the Act altering water quality control laws applicable in the states at the "downstream" end of the pipeline. If you wish to insure that the downstream water quality laws (as well as the upstream water laws) remain unmodified by judicial readings of the Act, then language suggested below may be helpful.

F. Abuse of Water Law Provisions

While the likelihood of abuse seems remote, questions might be raised about potential abuse of the Act's water law provisions by states located between the two "end" states, where water enters and leaves the pipelines. Those intermediate states would not appear to have a real concern with the water that simply passes through the pipeline. Still, to prevent the use of the Act's water law provisions as a "backdoor veto" of a pipeline or right-of-way (perhaps with an anti-import statute) you may wish to consider whether there is a need for language like that proposed at the end of the next section.

III. Proposed Language

After reviewing some of the earlier cases that asserted federal dominance over state water law systems, and realizing that the Committee wishes to ensure (rather than just be "pretty sure") that no federal water rights are created by this legislation, I can propose language for several major points identified in this paper. I can offer further help to you and your staff with later suggestions on other points.

1) In view of the history of careful judicial attention to legislative "purposes," "plans" and "schemes," it will be important for the "purpose" in section 2 to reflect your intentions.

You might add a Section 2(a)(7) providing:

> (7) the best interests of the nation will be served by limiting water rights used for the pipelines, to those which are created and owned under state water law, notwithstanding the potential lack of uniformity among the states in the opportunities and methods for acquisition and use of water in the interstate pipeline system.

You might then consider adding to 2(b), . . .,

> . . . consistent with the nonuniform state water law requirements, as provided herein.

For a consistent definition of the frequently used term "State Water Law," - you may wish to add a Section 3.(5):

> (5) The term State Water Law means that body of substantive and procedural water law of each State, contained in each state's statutes, regulations and common law, as interpreted by each state's administrative

> and judicial bodies. It includes such changes or amendments as may be lawfully made by the legislatures, courts and agencies of each state.
>
> It includes the state law which governs the creation, definition, ownership, transfer and termination of water rights, and the acquisition, control, use and distribution of those surface waters and ground waters subject to the jurisdiction of the State. This Act is not intended to alter the share of water of any interstate water course or aquifer, to which any state may be entitled or to which any state may be limited by the law governing the allocation between states of the waters of interstate water courses and aquifers. State water law may create, limit, qualify, amend or terminate water rights as permitted by the laws and Constitutions of each state.

One way to carry out some of the suggestions of this paper, would be to use the following language in place of the printed Section 6 (together with the "definition" and "purpose" clauses above). [This would not replace Senator Wallop's Sec. 6(d]).

> Sec. 6 (a)No water may be used in any interstate coal pipeline distribution system, except that used pursuant to water rights created by, and acquired under State Water Law, and thereafter used in accord with State Water Law.
>
> (b) Any conditions, qualifications or limitations imposed on such water rights by the state where the water rights were acquired, transported or used before entering such pipeline systems, in accordance with subsection (a), shall be valid, notwithstanding any effect on interstate commerce resulting from the use of the interstate coal pipeline distribution systems or the use of water pursuant to those rights in such systems.

To avoid implications that this legislation could weaken water quality controls in the receiving state, and to also accomplish the purposes of the present version of Section 6(c), you might consider:

> (c) Nothing in this Act shall pre-empt or modify State Water Law, or any state or federal law of water quality control, or any provision of any Interstate Compact dealing with the allocation of water or with water quality control.

And to help insure the intended results, consider adding:

> (d) This Act recognizes that interstate compacts and state water laws are carefully balanced and structured systems for allocation of water. The national interest is best served by developing interstate coal pipeline distribution systems in the context of those existing interstate compacts and state water laws, even though lack of uniform treatment of, and effects on, interstate commerce will necessarily result. No new federal interests in water are to be created or implied as a result of this legislation.

Finally, to insure that protection of state law does not provide an opportunity for states, other than those at the beginning or terminal ends of the pipeline systems, to affect the construction or operation of pipelines through State Water Law and water quality law provisions, you may wish to conclude with something along these lines:

> (e) Notwithstanding this Act's position on interstate compacts and state water laws and state water quality laws applied at the originating and terminal ends of the pipeline system, no State Water Laws, or water quality laws, and no water law or water quality law provisions of interstate compacts may restrict the movement of water, coal or coal slurry which is lawfully acquired and placed within any interstate coal pipeline distribution system, while it is in transit within that pipeline system.

(Note: This assumes retention of the definition of the term "interstate coal pipeline distribution system." If water were acquired in State A, and placed into a water pipeline for transport to State B where it would enter the slurry pipeline, then State B would not be able to halt the use of State A's water in either pipeline, since the water would have entered the "system" in State A. If that is not the result you wish, then different language would be required.)

I would be happy to respond to your questions.

Senator Wallop. Thank you very much, Mr. Widman. Mr. Clyde?

STATEMENT OF EDWARD W. CLYDE, COUNSEL, CLYDE, PRATT, GIBBS & CAHOON

Mr. Clyde. Thank you, Mr. Chairman, members of the committee. I appreciate being here. For the benefit of the people in the audience who will not have read my complete statement, I think I ought to, in view of the manner in which I have been introduced, also indicate on the record that I was the lead attorney in the negotiation of the contract with South Dakota, and I have consulted with them on Wyoming water rights and represented them from time to time over 4 or 5 years.

Senator Wallop. Thank you.

Mr. Clyde. I think a little bit of background may help. If you have plenty of water at the right place, almost any system will work. If you don't, there isn't any system that will provide it, but we can through wise laws make optimum use of their available water.

In the West we don't have enough water. We are reaching a point now in many, many areas of the West where there is not enough water for competing uses. Somebody has got to decide among those competing uses who is going to get water and how much and when and where. The thrust of the bill is to leave that decision to the State, which for some reasons I shall state in a minute I think is quite important and ought to be done.

One reason why I think it is important is that that is the system we have got. For 130 years we have been appropriating water in the West, and we have been doing it under State law. To change at this particular point and interpose some other system, will create a chaotic situation that doesn't accomplish much of anything.

Second, the State system is a well-developed system in every State. It is not the same in all States, but there has been 130 years of statutory-court interplay based upon the experience of the State that has refined and refined and refined their system so it works. The State system works. A Federal system of law is only in the embryo stage, so as we approach the full appropriation stage, having that allocation made within a system, time-tested, experienced through the courts and through the legislatures for 130 years in each of the Western States, it makes a great deal of sense to me to stay with that system as we now reach the point where we ar in somewhat of a crunch because the available water isn't enough now to meet the competing demands, and I would rather use that system than go to some new and untried system and experiment again. I don't know if we have time.

I have already indicated that mixing the systems doesn't work very well. We have to some extent in Utah, for example, where, and it is true throughout the West, the Indians have reserved water rights. In many cases they divert waters out of the very same rivers that the non-Indian users are doing. When the State administrative agency goes in and tries to throw the headgates, there is a contention that they do not have any jurisdiction over the Indian water, and the problem of harmonizing two systems out of a single source is a problem. We don't need more Federal rights in the State streams free of State regulation and administration.

Finally, I think many of the problems are local. The impacts are local. The harm is local. The benefits are local, and I think it is better to let them be decided at a local level.

There are areas in water where the problem is interstate in nature—upstream pollution as you discharge in a downstream State, location of a coal plant that puts acid rain over the border downwind. There are problems that are interstate in nature, but most water problems aren't. Most water problems are local, and we have a good, time-tested local system in the State law. Congress for 130 years has acquiesced in it. It is working. It is working about as well as any field of administrative law, the whole spectrum of law. I would leave it there, and that, of course, is what the bill and the language purports to do.

As far as power is concerned, I think the Federal Government has always had the power. You start out with the western lands having been acquired by the Federal Government in a variety of ways, but much of them by outright purchase, some of them through the use of sovereign powers and settling boundary disputes with Mexico and Canada, others by treaties, but in all of them the U.S. Supreme Court has said the Federal Government owns the land in the same sense that a farmer owns his farm. Then the property clause of the U.S. Constitution put the power to manage and dispose of that Federal property in Congress, and the court has said again and again that the discretion of Congress is unrestrained. The Constitution leaves it to Congress, not the courts, and Congress withholds it from sale or regulates it as it sees fit, so you start out with the Federal Government not only having sovereign power in our federal system, but the powers of a proprietary owner.

Now in much of the West that is still the situation. Their waters upstream flow through public lands, and if Congress had not acquiesced in the water being appropriated in accordance with State law, we would have had squatter rights that would have had to be ratified or they wouldn't have been upheld. In 1866 that is precisely what Congress did. It said rights that have been initiated under local custom and local laws are hereby confirmed. Then in 1877 it said when we give a patent to land, we don't give a patent to water. We are going to leave the water to the State. Let the State work out their own system of appropriation.

In 1935 the U.S. Supreme Court said this was true, and that the patent to the land didn't carry with it any water rights. That would have given rise to the riparian rights doctrine, but the Court said no, that the Desert Land Act separated them, and the purpose of this was to leave the State free to develop their individual system for appropriating the water.

Once this Federal offer of letting a private right attach to water is accepted in the same way that Congress may approve a right as a vested right protected by the Constitution—and the Court has so hailed it in *Hunter* v. *The United States* in which a man, under California law, purchased some water rights for livestock on land that was incorporated in a national monument. The Federal Government said he had no right to graze those lands, that they had included them in the national monument. The Court said no, he has a valid water right. Either pay him for it or give him the right-of-way to get the water off, and most of the water, of the base flow of most of the streams is already appropriated.

There is some excess water on Federal projects, yet to be developed in random years, but the base flows are appropriated under the State system.

Now where are we? I haven't any doubt that the mixing of water with coal and taking it in interstate commerce comes under the commerce clause. I think even without regard to the commerce clause we have had a whole lot of Federal suggestions in the cases of Federal control. Based upon the general welfare clause, Federal control could have been asserted because the reclamation program was to irrigate federally owned land. You uphold Federal statutes to improve navigation. We have upheld and provided for the common defense.

The power exists. Now the question is, does Congress, every time it legislates in this area have to preempt, and the answer to that is no. It is crystal clear. You don't have to preempt, so when the coal moves in the coal slurry line, if Congress wanted to, I think it could do what has been done in the Fair Labor Standards Act, say it affects commerce and go all the way back to the headquarters office of the company and get the elevator operators and the man that washes the windows and the guy that shovels the snow off the sidewalk because he affects commerce. I don't have any doubt that you could back up the coal slurry pipeline to the point where it is diverted out of a stream, but I don't think you have to, and I think the cases that we have set forth in our papers make it clear that you don't. The important thing is to be explicit that that isn't your intent.

I think your language is sufficiently explicit. There are a few areas where I have some problems but I don't think this is the place to go into them. Let me give you one example. There is a concept in the bill that you must have a State water right before you can exercise the right of eminent domain. What kind of a right do you mean? When you file an application that doesn't get approved, it is a court right. It establishes a priority. If you follow the law, it will become a water right, but it is not a perfected right here. It is an inchoate right. Sometimes you don't have a water right. You need to go to adjudication. In Wyoming and Colorado you don't even have a permit system. In Utah you have to get a certificate of appropriation and so on.

I think it would be a mistake to leave that uncertain, and I don't think it ought to go all the way to an adjudicated right because then you have the chicken before the egg or the cart before the horse. I don't have any problems with initiating the water right, but I think carrying it all the way through adjudicated right takes 4 or 5 years and one, incidentally, can't get a certificate until one has completed one's works, which means one has to get the line in. You can't do that without eminent domain, so this process of how much of a State water right you have to have perfected before you can use the power needs to be addressed.

There are a couple of technical problems like that that I probably will address in a paper I will leave with you, but I don't think it is productive to use the time here today to give anything further than just that one example.

One other thing—I think you probably ought to follow Mr. Neufeld's suggestion and define reserved rights. You will open a Pandora's box I guess, but the papers do. The Indians have got a very complicated problem as to whether or not they can sell water off the Indian reservation for nonreservation use. That is a problem Congress is going to have to come to grips with some time.

The water was set aside for them so they could quit being hunters and could live in what the court said was a civilized society, that is, cultivate farms. To do that they had to have water, and therefore, they reserved water to meet the needs of their irrigable land. Can they take that water off their irrigable lands and sell it to ETSI, so that ETSI can use it to take coal to Arkansas? If the language says, without a definition of reserved right, that there is no Federal reserved right, without indicating what you intend to do, it is a problem, and if you try to resolve that rather complicated question in this bill, I think you are opening a Pandora's box, and you ought to look at that one. I don't have any particular recommendation. Restraints perhaps Indian water held in trust is different from other Federal reserved water. The ability to put restrictions and restraints on it diminishes its value. It is a complicated, difficult problem. I don't know whether you ought to try to deal with it here. My feeling is that you shouldn't, and therefore I prefer to see Federal reserved water defined, I mean water reserved by the Federal Government for Federal purposes other than Indians, but you do have a problem in that area that is being glossed over.

Thank you.

[The prepared statement of Mr. Clyde follows:]

BEFORE THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

HEARINGS ON S. 1844

STATEMENT OF EDWARD W. CLYDE, ATTORNEY

My name is Edward W. Clyde. I live at 1329 Blaine Avenue, Salt Lake City, Utah.

Throughout the 40 years that I have been licensed to practice law, I have specialized in the practice of western water law. One of my earliest assignments was that of an Assistant Attorney General for the State of Utah, retained to represent the state water agencies. This included three years as a full time attorney for the State Engineer, who grants permits and administers State water rights, representation of the Utah Water & Power Board, which was a State agency created to construct small water projects, and as a special legal consultant to the State of Utah in connection with the negotiation of the Upper Colorado River Compact. I taught water law at the University of Utah for about ten years. I indexed and digested all of the Utah Supreme Court cases dealing with water. The two-volume digest was published in 1948 and since has been updated through 1973. I have done extensive legal writing on water law and was a major contributor to the seven-volume work on Water and Water Rights, published by Allen Smith Co. in 1967. I served for several years as Chairman of the Water Committee for the Natural Resources Law Section of the American Bar Association and then served one year as Chairman of that Section. My practice has extended throughout much of the West in both the state and federal courts. I have been involved, generally as lead counsel, in many major water lawsuits.

I have served as a legal consultant to the Energy Transportation Systems Inc. and served as lead counsel in the negotiation of the contract for securing water from the Oahe Reservoir in South Dakota.

In this practice I have been required to address the state rights versus federal rights problems in western water. I have published articles regarding the same and frequently am involved with that problem in the courts. The problem in part developed because the federal government was the owner of the riparian lands in the West.

Contrary to a rather common understanding, the doctrine of riparian rights was not at first rejected in the West because it was ill-adapted to our climatic conditions. Rather, the courts refused to apply the doctrine of riparian rights in disputes between settlers, because from 1848 until about 1862, they were not riparian land owners. Western land was owned in fee by the United States of America. Boggs v. Merced, 14 Cal. 279, 374 (1859); Moore v. Smaw, 17 Cal. 199 (1861); Broder v. Water Co., 101 U.S. 274, 25 L.Ed. 790 (1879). All settlers were trespassers against the government. When one settler located on the banks of a stream and claimed riparian rights, the early courts ruled against him, not because it thought the doctrine was ill-adapted to the arid West, but because the settler owned no lands and the doctrine of riparian rights was based on the ownership of riparian lands. This was clearly the basis of the holding in Irwin v.

Phillips, 5 Cal. 140 (1855). That case is generally considered to be the original precedent for the doctrine of prior appropriation. To the assertion of the riparian rights doctrine the court said:

> But upon an examination of the authorities which support that doctrine, it will be found to rest upon the fact of individual rights of landed proprietors upon the stream, the principle being both at the civil and common law that the owner of lands on the banks of a watercourse owns to the middle of the stream, and has the right in virtue of his proprietorship to the use of the water in its pure and natural condition. (5 Cal. 140, at 146).

Since the riparian rights doctrine was held inapplicable because there were no riparian owners except the federal government, some other principles to adjudicate the rights between the settlers were necessary. The doctrine of prior appropriation was thus born.

After the Homestead Act was enacted in 1862, and after the making of large land grants by the government to private railroads, an inevitable conflict arose between those whose rights had been recognized under the court approved prior appropriation doctrine and the new land owners. These land owners claimed their title through the federal government, which as noted, originally owned both the land and the water in a proprietary capacity. As successor to the United States, the patentees now owned riparian lands. The courts, when first confronted with this new problem, applied the riparian rights doctrine and divested the users who claimed by virtue of a prior appropriation. Van Sickle v. Haines, 7 Nev. 249 (1872); Union Mill & Mining Co. v. Ferris, 16 Int. Rev. Rec. 114, Fed. Cas. 14, 371 (1872).

These two decisions (VanSickle and Union Mill), one in the state and one in the federal court, caused widespread dissatisfaction. A number of states, led by Colorado, refused to recognize any right to water in any land owner merely because of land ownership. Beneficial use was declared to be the measure and the limit of the right, and no rights were recognized as having vested except upon actual diversion and application to a beneficial use. The case of Coffin v. Left Hand Ditch, 6 Colo. 443 (1882), is usually cited as the original precedent representing what came to be known as the "Colorado doctrine", the doctrine widely followed by the western states. (Weil, Water Rights in the Western States, §118, p. 141).

Weil, writing in 1905, cites the early court decisions from each of the states aligned with the Colorado doctrine and then states:

> . . . these younger states threw aside the common law of riparian rights absolutely (even should the riparian settlement in turn precede the diversion) and have even refused to recognize it at all, and therewith have refused to recognize any proprietary water rights in a land owner as such under any circumstances, whether it be the United States, or its private successors holding land patents. (page 143)

The doctrine of prior appropriation had developed without legislative sanction. It crystallized into a firm system of law for controlling the rights of settlers who were considered to be trespassers on federal lands. This local custom, which was given judicial sanction, is noted in concise language in Meng v. Coffey, 67 Neb. 500, 93 N.W. 713, 716 (1903), where the court said:

> It [the local rule or custom recognized by court decision] was a crude attempt to preserve order and the general peace and to settle customary rights among a body of men, subject to no law, under which so many and so valuable rights arose

> that when the law stepped in it was obliged to recognize them. In this way the rule of appropriation became established in the Pacific states, in opposition to the common law, with reference to streams or bodies of water which wholly ran through or were situated on the public lands of the United States.

For other early opinions from the courts recognizing the doctrine of prior appropriations, see Lobdell v. Simpson, 2 Nev. 274 (1866); Hill v. Newman, 5 Cal. 445 (1855); Crane v. Winsor, 2 Ut. 248 (1877). These local customs which were given judicial sanction by state courts were also recognized by the U. S. Supreme Court. Atchison v. Peterson, 87 U.S. 507, 22 L.Ed. 414 (1874); Broder v. Water Co., supra; Jennison v. Kirk, 98 U.S. 453, 25 L.Ed. 240 (1879).

In 1866 Congress confirmed these pre-existing rights based on local customs by a general statute dealing for the most part with mining claims. One section of this Act of 1866 dealt with water rights. It simply provided:

> Whenever, by priority of possession, rights to the use of water for mining, agriculture, manufacturing, or other purposes have vested and accrued and the same are recognized and used by the local customs, laws and decisions of courts, the possessor and owner of such vested rights shall be maintained and protected in the same. . .(Act of July 26, 1866, §9, 14 Stat. 253)

In 1877 the United States freed the states from any restraint based on the claim of a proprietary interest in the water by reason of a land patent from the federal government (Desert Land Act, 19 Stat. 377). By this Act, public water was severed from the public domain. There was much debate after 1877 as to whether the Act had this effect, but all doubt in that regard was resolved by the U. S. Supreme Court in the case of California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142, 79

L.Ed. 1356 (1934). This case contains an excellent analysis of the Desert Land Act and other federal legislation since the original Act of 1866. There can, in view of this last cited case, now be no doubt that a patent from the United States does not carry with it any right to water; that ownership of land and ownership of water are separate and distinct.

Not only has Congress by the Desert Land Act of 1877 severed ownership of water from the ownership of land, but the U. S. Supreme Court has affirmed the right of the states to repudiate the theory of riparian rights and recognized the validity of the so-called "Colorado doctrine" and affirmed it in the case of _Kansas v. Colorado_, 206 U.S. 46, 27 S.Ct. 655, 51 L.Ed. 956 (1907).

In an Article I wrote in 1949 on the Upper Colorado River Compact ("Legal Aspects of the Development of the Colorado River", Utah Law Review, Vol. 1, No. 1, p. 26), I noted the above and then stated that this "must now be accepted as settled doctrine", and that under either federal or state decisions that the law controlling the use of water on public lands is the law of prior appropriation. He who first beneficially uses the water is protected in his right of use". For that statement I cited the _California-Oregon Power Co. v. Beaver Portland Cement Co._ case, _supra_. I spoke with too much assurance and too soon. In 1949, when I wrote the article, there had been some major encroachments on state control. The U. S. Supreme Court had held in 1908 (_Winters v. United States_, 207 U. S. 564) that it was the intent of the federal government, when it placed the Indians on reservations, to make it possible for them to give up their practice of living as hunters off the land and to undertake farming and living in communities. This, said the court, would only be possible in the arid West if in addition to the land the Indians had access to water. The court, therefore, held that when the Indian reservation was created, there was reserved for the benefit of the Indians the water they needed for their irrigable lands. It was suggested that the power of the federal government to so reserve the water might have been based on its power to make treaties with the Indians, on the federal government's proprietary ownership of western land and also on the rights of the federal government as a riparian owner of lands along the streams. This reserved rights concept has been expanded to other federal uses and was more recently confirmed by the U. S. Supreme Court in 1963 in the last Arizona v. California case (363 U. S. 546). Other inroads followed.

The court held in the first Arizona v. California case, 283 U. S. 423 (1931) that the United States did not need to comply with Arizona law nor secure Arizona permits for Boulder Dam. The court was only concerned with whether Congress had the power to authorize the construction of the project. The court held that it did, because it was an improvement to navigation, thus, said the court, making it unnecessary to determine whether the project might also have been legally justified for the purpose of irrigating the public lands of the United States, to regulate stream flow, as a means of apportioning the water of the river among the states equitably entitled thereto, or for the purpose of performing international obligations. In F.P.C. v. Oregon, 389 U. S. 435 (1955), the fact that a federal project was in part on Indian lands and in part within a power reserve was used as a basis for non-compliance with the laws of the State of Oregon.

In 1958, in a series of cases known as the Ivanhoe cases (Ivanhoe Irr. Dist. v. McCracken, 357 U.S. 275) the U. S. Supreme Court noted that the power of the federal government to impose reasonable conditions on the use of federal funds, federal property and federal privileges was "beyond challenge". It noted that the United States had expended funds to acquire federal property for a valid public and national purpose--the promotion of agriculture. The power of Congress to do this, said the court, flows not only from the General Welfare Clause of Article I, Sec. 8 of the Constitution, but also, under Article IV, Sec. 3, relating to the management and disposal of federal property. The court concluded that Article VI of the Constitution "forbids state encroachment on the supremacy of federal legislative action". The U. S. Supreme Court had also recognized that Congress had the absolute power over navigable waters and that if Congress elected to utilize its full powers, it could exclude the riparian owners from the benefits of the water of a navigable stream, without compensation. See United States v. Twin Cities Power Co., 350 U. S. 222 (1956). In 1963 in Arizona v. California, supra, the court held that Congress had the power to apportion the water of an interstate stream and that by adopting the Boulder Canyon Project Act, Congress had intended to do just that.

This line of cases caused serious concern in the West. Much of the water from western streams had already been appropriated under state law and with the consent of Congress. The rights had vested. As the Ninth Circuit Court held in Hunter v. United States, 388 F.2d 188 (1908), the rights so perfected under state law are property rights protected by the U. S. Constitution. Still, there was concern about maintaining state control of the appropriation process and of administration of the streams. In the case of the Indians, the priorities were the dates the reservations were created, which in most cases would predate non-Indian rights. The quantity of water reserved for the Indians and for other federal purposes was unknown. Mechanisms for having the rights quantified did not exist. Efforts were made to get Congress to make a broad relinquishment of water rights to the states, but these efforts failed. We thus had developing on the rivers a dual system--one controlled by federal law and the other controlled by state law.

The court, however, was speaking in terms of power and was repeatedly stating that whether Congress used its full power was discretionary. Where Congress made it clear that it did not by a particular enactment intend to foreclose the states, it appears clear that the courts will uphold it. Such is the thrust of two fairly recent cases, California v. United States, 438 U.S. 645 (1978) and Imperial Irr. Co. v. Yeller, 447 U.S. 352 (1980). In the California case, the court construed Sec. 8 of the Reclamation Act of 1902. This section has since 1902 required the Secretary of the Interior to secure water for federal reclamation projects by making a filing under the state permit system. The court held that the statute meant what it said and that it should be enforced. Not only did the Secretary have to comply with state law, but the state was free to impose conditions and implement state water policy in the approval of the permit, unless state water policy was clearly at cross purposes with express federal mandates. The *Yellen* case is of similar import, holding that the Secretary of Interior, in making contracts for the use of water made available by the Boulder Canyon Project Act, had to honor perfected state rights.

The Flood Control Act of 1944 specifically provided for use of water from the authorized projects for various consumptive uses. However, in Sec. 1(b) the Act stated that the use of water for navigation in connection with the operation and maintenance of the project works "shall be only such uses" as do not conflict with the beneficial use of the water. This is a clear statement by Congress that it did not want federal officials to operate the facilities constructed under the authority of the 1944 Flood Control Act for navigation if to do so would interfere with authorized consumptive uses in the states.

Since water for coal slurry lines will move in interstate commerce, Congress has the power to regulate the interstate movement. This will be true whether the proposed legislation is enacted or not. The U. S. Constitution simply places the power to regulate interstate commerce with Congress and cases upholding use of the commerce power demonstrate that the connection with commerce can be quite remote. If Congress wants to exercise federal power "to the hilt", it might start its regulatory process all the way back to the diversion of water from the stream, declaring that this is where the interstate movement begins. The likelihood that Congress will ever so assert its regulatory power is so remote that I consider it to be essentially nil. Again and again, for over 100 years, Congress has directed federal officials to honor state water rights, interstate compacts and the rights of states to allocate the private use of water from western streams. It is clearly not necessary for Congress to exercise its full power to regulate interstate commerce. *F.P.C. v. Niagara Mohawk Power Corp.*, 347 U.S. 239 (1954); *United States v. Gerlach Live Stock Co.*, 339 U.S. 725 (1950).

Congress can leave room for legislation by the states. It may discharge its legislative function by adopting state laws, present or prospective. *United States v. Sharpnack*, 355 U.S. 286 (1958); *Prudential Ins. Co. v. Benjamin*, 328 U.S. 408 (1946). It may also remove the obstacles to state legislation which will permit the state itself to legislate directly on the subject. *Butte City Water Co. v. Baker*, 196 U.S. 119 (1905); *In re Rahrer*, 140 U.S. 545 (1891).

If the language which is proposed in S. 1844 is adopted, I see no danger that the courts will hold that it was the intent of Congress to interfere at all with the state appropriation systems. The language clearly directs that water be appropriated for these projects under state law. *California v. United States*, *supra*, demonstrates that the courts will uphold this mandate.

In conclusion, on the commerce question I would merely state that this proposed Act does not purport to grant any powers to regulate commerce. That power is granted to Congress by the Constitution. If water rights are obtained under state law and a coal slurry line is built without the benefit of this Act, Congress clearly has the power to regulate the interstate movement of the coal and water. In this regard, the Act, if adopted, ought to give western water states considerable comfort, because it contains an explicit statement by Congress that water for coal slurry pipelines is to be obtained under state substantive and procedural law. It further provides that the establishment and exercise of the rights shall be determined pursuant to state law, notwithstanding the fact that transportation use or disposal of the water will be in interstate commerce. It further expressly protects state laws and interstate compacts governing the appropriation, use and diversion of water. Thus, I do not see the proposed Act as threatening state water law, but to the contrary, it is a congressional declaration that the right of the state to control the appropriation and use of the water is not to be interfered with, even though the coal and water will move in interstate commerce. I think the cases make it clear that Congress can withhold the full exercise of its commerce powers and that the courts will uphold the statutory mandates.

Senator WALLOP. Thank you very much. Senator Johnston?

Senator JOHNSTON. I just want to compliment this panel. It is one of the best panels we have ever had on any subject. It has been very enlightening, very instructive to us, and reassuring to all of us that we have the powers to do what we want to do in this bill to protect States rights on water or confirm States rights on water as I believe the dean put it.

I think we have had some good suggestions for some minor alterations to the bill that could make it better. Now I would like to ask the panel if anybody can answer this, how do you feel about the idea of multistate signoff on water rights, not necessarily in this bill, but just the concept?

Mr. TRELEASE. I don't know what to think about it, Senator. It is a concept that is completely unknown in water law today. Each State on an interstate source, whether it is a river, and I believe also an aquifer, although there have not been any cases specifically about that, has a right to share the resource, a right to an equitable apportionment of it. This can be made by the Supreme Court or by interstate commerce at least once it was made by Congress—but once that share is allocated or as long as the State stays within that share, no other State has any authority under present law to say what that State shall do with its water.

Senator JOHNSTON. Do you think there is any way that Congress within a period of a few years could work out a system of allocating and signing off on a system of multistate use?

Mr. TRELEASE. I would say if you are trying to preserve State water law, then what you would allow would be—as Senator Hatch and Mr. Clyde said earlier—that those States which sit at the top of the roof see water go off in all directions. If we have to ask permission of every downstream State for every drop of water that was used in our State, you have ruined state water law in Wyoming and Colorado.

Senator JOHNSTON. Mr. Clyde, I think you really answered the question in your testimony by saying that most of the effects of water are local, naming both the benefits and the harm. Do I take it that your answer would be similar?

Mr. CLYDE. I very feel strongly it would be a mistake to do that. In a sense when we work with water in the West we have got the only game in town, and we are inclined to use water for a whole lot of things besides water. We use it for land use regulation. We hold all kinds of things hostage, and where the question is whether or not it is in the public interest to allocate, there is no doubt that maybe this will provoke the States into the feeling that they need an interstate compact. I have worked on a rather large number of them. I started working at 24 years of age on a Colorado River compact. Being by far the youngest there they would negotiate all day and I would write all night and we finally got it down, but it takes a long, long time. The lower basin was started in 1922, finished with a six-way compact in 1928. Arizona wouldn't sign it. They had three Supreme Court opinions and finally did ratify it, but it took a generation.

The upper basin finally negotiated a compact after Congress said they would not build the upper Colorado River storage project until the States divided it.

Senator McClure was asking how one determines when this is such that you must go to court. Well, the Supreme Court laid out very clear-cut guidelines on that. Federal courts only have jurisdiction over cases and controversies. If you don't have a case or a controversy, they don't have jurisdiction, so rightness in the Federal system is jurisdiction, and to have rightness, you have got to have injury or immediate, imminent threatened injury, and if you get that far along, that a development here is threatening a development there or it is riparian, you can go to court and you can get an adjudication and an original action in the U.S. Supreme Court.

If you want to do it before then, then the States have to be willing to sit down and hammer it out, and it is a very time-consuming project. I started on the Bear River when I was back at this early age, and it took 20 years before they, Wyoming and Idaho and Utah, could progress on it. It is a big job. It will be a lot bigger job on the Missouri. In my opinion, the Missouri River isn't within a country mile of being ripe for litigation. It couldn't possibly have a case or controversy there yet, but if they have developments that are taking place such that the States can get together and say let's define surplus, the mechanism is there. I think it would be impossible for Congress to do it.

The Colorado is unique. You have the California Limitation Act where California put a cap on what it would take. Nevada has signed off. They did that in order to get the Federal Government to build Boulder Dam as a six-State compact with Arizona resisting, and then after Arizona signed on, they wouldn't let California out of the California Limitations Act, so in effect it was the States that made an apportionment of the water that the Supreme Court saw in the last *Arizona-California* case as having been an attempt by Congress to apportion.

The problem is that this is on a river like the Missouri and I just don't think you can handle it. The States are going to have to divide it. The way I see it, there are seven States. We have seven jugs, and we make an interstate apportionment, determining how big Utah's jug is and how big California's jug is. That is an interstate problem. Once you determine that Utah's jug holds a 1,300,000 acre-feet, it is a Utah problem, and how we use it is none of California's business unless we are putting pollution in the stream and sending it down and therefore I think the signoff would be a serious error.

Senator JOHNSTON. Thank you very much. Would you state for the record that under section 6 of this measure, we are actually giving more protection to the States than they have under existing law. I would like to reassure some of my colleagues on this matter.

Mr. CLYDE. There just isn't any question about it. There are coal slurry lines being built without this, one in Utah going from southwestern Utah to Las Vegas. The Black Mesa line is in place. There will be others. If they cross State lines, they are in interstate commerce. Without this language you might get an inference from the court that Congress intends to regulate it, that they have preempted the States. With this language, it is impossible to draw that inference. Congress is not only not preempted, they have expressly, as in this case that is only 60 days old, the *New England* case, you have expressly left the door open for States to continue to control that area. So I haven't any question at all that the Western States ought to feel a great deal better with this bill than without it.

Senator JOHNSTON. Also under this bill, I think Mr. Widman pointed out that we should change the language a bit, but it is our intent not to allow the Federal Government to take the water from the Federal reserved lands and dedicate that to coal slurry pipeline. Rather it is our intent that water from the Federal reserved lands be allocated according to State law, and that this is an additional right for the State. Is that not correct?

Mr. CLYDE. It is for the Federal reserved water, but for the Indians it is not. The *New Mexico* case pretty well indicates that there is not going to be much water and you wouldn't use it to build a coal slurry pipeline. If you had a withdrawal of water for the big oil shale withdrawal in Colorado, it might be substantial, but the Federal reserved water, that I know isn't much.

The areas of concern are in the use of Federal water or projects built with Federal funds that are under Federal control and built for Federal purposes, like the Yellowtail Dam. It has got 1 million acre feet that hasn't been sold. You have a lot of projects built by the corps where there isn't a State permit. The corps doesn't file for State permits. The Bureau has to, but the corps doesn't, and I think the language that you have suggested in your amendment, that one cannot use the Federal water from these Federal projects except if one has have got an approved State permit, I think that is an important area. I don't think the Federal reserved water is a very large amount of water. I don't think it is a terribly important problem, but water which goes into the coal slurry pipeline should be required to be water that has been obtained under a State permit, and the pipeline will then have to comply with State substantive and procedural law even though it moves in interstate commerce. This would defer to State law, and I think that would give those practicing water law throughout the West a great deal of comfort. I think we would be protected in our States rights.

Senator JOHNSTON. Thank you, Mr. Chairman, and thank you, panel.

Senator WALLOP. Mr. Trelease, do you agree with that assessment of the language in this law absent any other provisions? I mean is there more protection if this bill were to pass than presently exists?

Mr. TRELEASE. Yes, sir. The reason I am here is that I made a speech at Denver saying that in my opinion, these laws currently are unconstitutional under the *Altus* v. *Carr* case. I think that this legislation is needed, and the amendment to the printed bill that would apply this to any coal slurry pipeline, not just those authorized to use eminent domain, is needed very much in order to save those State water laws because, as has been demonstrated, it is possible for a coal slurry pipeline to find what they call a window and build an interstate line without using the power of eminent domain. And a pipeline such as that could perhaps raise the same questions that were raised in the *Altus* case, and if that continues as law, which I think it will, there could go the ballgame. The State law would not be applicable because it would be a restraint on commerce. Pass this law, and the possibility is removed.

Senator **Wallop**. What about the provision in the Wyoming constitution which requires that no Wyoming water be used outside the boundaries of the State—I guess what it actually says is in a neighboring State—without the permission of the legislature—would that likely be struck or could it be struck?

Mr. **Trelease**. That is not a constitutional question. I think it tracks so closely the language of the Texas Legislature in the *Altus* v. *Carr* case, if that case is still good law which I think it is, that Wyoming law is not valid.

However, if you pass this law, then what Wyoming is really saying is that you must come to the legislature for your water right, as was done by the ETSI pipeline, by Eastern, and by the phosphate slurry line. You must, and then the State legislatures may impose the conditions needed for orderly development with as little disruption of the State economy as possible, and this I think is very desirable.

Senator **Wallop**. We have not asked anything of—we have curiously conflicting commentary by some of the Members of the House that came to testify earlier this morning as to when States rights applies and when it does not. It seems like it applies if it is yours and not if it is somebody else's.

Given that, I guess the point I am trying to come to here is what reassurances would those other States, Iowa and Missouri, have if a State such as South Dakota exercised its privilege with the water that it has in Oahe? I think I know the answer. I think what you said was that if there were grounds for action, they would bring it, but there is nothing to prevent them ever seeking to bring an action, is there? It is just whether a court would agree to hear it?

Mr. **Trelease**. That is correct. They would have to show grounds for bringing the suit, and certainly there is no shortage of water. There could not be a suit such as that between Wyoming and Nebraska on the North Platte River or between Colorado and Wyoming on the Laramie River. There is still a great deal of water in the Missouri River Basin.

Mr. **Widman**. Plus, as Ed Clyde suggested a few minutes ago, it seems to me to be quite a stimulus to get an interstate compact going, and that, of course, is an alternate mechanism, maybe a preferable mechanism to the multi-State signoff.

Mr. **Clyde**. Even if one State like the State of Utah on the Bear River, realizing it was going to get a compact, or a lawsuit was brought issued 500,000 acre feet of new permits and greatly exceeded what ultimately would be equitable apportionment in the suit, Idaho doesn't lose the water right. We have to stay within our own jug. That jug, the size of that jug, is ultimately going to be fixed. It is going to be fixed in the court. It is going to be fixed by agreement, and if South Dakota makes water sales beyond what its jug size is finally fixed at, those that encroach on other States will fail because South Dakota cannot grant a permit to appropriate Missouri's water. It has to stay within its own rights, and if people are diverting more than their share of water under their permit and threatening harm to the other States, the suit is ripe, and they can go to court. The fear they have will not materialize, cannot materialize.

Senator **Wallop**. Without these protections that are in here, should this legislation pass, would the phrase, "in the national interest," create even more severe problems for our various States in their ability to exercise their water right?

Mr. **Widman**. It certainly would. That would indicate that you had a congressional scheme to which there should perhaps be some Federal preemption attached, and without the anticipation of the types of conflicts that could arise found in the explicit articulation of the supremacy of the State water law, we would have some serious problems.

Senator **Wallop**. Given that, is there anything that the committee or Congress should do to make clear that when you say "in the national interest," this isn't meant to take precedence in this legislation over the State water law protection that we otherwise seek to add?

Mr. **Widman**. In my paper I offer some suggestions for doing precisely that, particularly including in the "purpose clause" some language showing that you recognize this and that your ultimate scheme is to give the State water law priority even if it means that a pipeline does not get built. You would then have language and reports which show that you anticipated this conflict. Then you would not have the sort of grand legislative scheme with Federal supremacy that we saw in *First Iowa* and some of the other cases.

Mr. **Clyde**. I think one of the committee members, and I don't now remember which one, made an important distinction. You can find the coal slurry line in the public interest, but you ought not to go back to the approval of the water right in the case of a finding in the national interest. There ought to be a distinction between the water right and the eminent domain right. If you find the pipeline is in the national interest and you can get a permit under State law which is governed by its rules and which includes a finding that it is in the State's public interest, then you can put the two together and you don't have the tail wagging the dog. I would make that distinction very clear.

Senator **Wallop**. When I was drafting my amendments to sections 4 and 6, one of the things I was trying not to do was to create any new water right in a State other than the State of origin. Is there anything that we need to do in the language you have seen that would assure that?

Mr. **Trelease**. It would be possible to say that the acquisition of water right must take place pursuant to and in compliance with the substantive and procedural law of that State or of the State granting the water right, and I think that would eliminate the problem or the question of any other State having the right to veto or to approve.

Mr. **Clyde**. In the same phrase relating to the control, appropriation, use or distribution of water, and the protection or enforcement of water rights—State that this is pursuant to and in compliance with State law, substantive and procedural, relating to the control, appropriation, use, or distribution of the water and the protection and enforcement of the right. I think that would improve it if you do those two things.

Mr. **Widman**. Actually I saw a couple of small problems there. One I alluded to before was this phrase "pursuant to State law." If we recognize the State law also must contemplate Federal reserved rights, it seems to me that it creates a sort of circular terminology.

I think what you are talking about are water rights created under State law, when you are talking about State rights. But if you just say "pursuant to State law," there is ambiguity.

As far as the language about use, limitation, termination and so on, it occurred to me as I read through the various drafts, that there were a number of places where you might want to use that long seriatum description, and that a much more effective way to do that would be to define the term "State water law" rather than run the risk that you would miss a few terms each time that issue came up.

Another problem here is that if you do use the term "State of origin," then I think you probably should also consider an additional definition of that term. You are probably not thinking of the State where the water first fell as rain. But consider the case in which water might be acquired in one State and transported over a State border and then put into the pipeline in another State. You need to think of all those possibilities in your drafting.

Mr. **Clyde**. Before we close the record, may I file a letter from Mr. Linsenbard, counsel for ETSI?

Senator **Wallop**. By all means; it would be very helpful, and I hope you would all agree to comment in some specific detail on any questions that may arise out of the committee on these issues. I know that is an imposition, but I think it is a matter of some interest to all of us as we seek to wrestle with this.

[The letter follows:]

ETSI Pipeline Project, A Joint Venture
1620 Eye Street, N.W.
Suite 703
Washington, DC 20006
Telephone (202) 293-3825

June 4, 1982

Honorable James A. McClure
Chairman
Committee on Energy and
  Natural Resources
United States Senate
Washington, D. C.   20510

Dear Senator McClure:

During the Senate Energy Committee Hearings on S. 1844 on May 10, certain unsupported allegations and factual misrepresentations regarding ETSI's acquisition of water rights to the Oahe Reservoir were inserted into the record. ETSI would like to set the record straight regarding its water acquisition efforts, which have been well documented and publicly disclosed over several years. There is absolutely no truth to the charges that ETSI, the State of South Dakota and the Bureau of Reclamation somehow engaged in a conspiracy to conceal ETSI's selection of surface water from the Oahe Reservoir in South Dakota as its preferred water source.

In a 1977 Draft EIS on this subject, the Missouri River Basin states themselves forecast the availability of 3,000,000 acre feet per year from the Missouri River System for industrial use (Figure 1-2 Draft EIS, Water for Energy: Missouri River Reservoirs). This figure was reduced to 1,000,000 acre feet per year in the Final EIS as adopted by the Bureau of Reclamation (Ibid: Final EIS). In particular, the use of the Oahe Reservoir as a source for the ETSI project was specifically spelled out in the 1977 EIS (Ibid: pp. 1-9).

ETSI's interest in the use of a very small part of the vast surplus of unallocated surface water of the Oahe has had a long and public history. On December 5, 1973, ETSI applied to the U. S. Army Corps of Engineers for authority to divert Oahe water to the project. A similar request was made of the Bureau of Reclamation on December 18, 1974. In parallel fashion, ETSI, beginning in 1974, began long and difficult negotiations with the State of South Dakota for the purchase and diversion of its surplus surface water. Indeed, ETSI made a major attempt to get the South Dakota Legislature to pass an act which would have given the water rights from Lake Oahe in 1977. This Bill passed both House and Senate and was vetoed by the Governor. The very uncertainties concerning the willingness of the State of South Dakota to grant permission for the use of Oahe water to ETSI precluded any firm announcement or commitment by ETSI to the Oahe alternative. Even after the affirmative actions of the South Dakota Legislature, meeting in special session on September 23, 1981, there remained a number of administrative conditions precedent to be satisfied, followed by a complicated and intense negotiating process before the Oahe selection could actually be made. It was not until December 23, 1981 that a contract with South Dakota was consummated.

It was for these reasons that the ETSI plan as articulated in both the Draft EIS and in the Final EIS issued by the Bureau of Land Management on July 17, 1981 indicated that the ETSI project water source would be ground water from the Madison Formation. ETSI had well permits in hand from the State of Wyoming for the use of such water while discussions with South Dakota officials were still in a very preliminary stage.

Considering the amount of previously available data, the facts will show that of the water alternatives discussed in the Final EIS, both the Oahe and the Madison were fully and adequately evaluated as alternative sources.

From the initial scoping process in July 1979 through September 16, 1981, the EIS disclosing these water sources was exposed to public comment in three separate Federal Register publications and at over a dozen public hearings. Any contention that there was inadequate opportunity for public comment or scrutiny is not supportable on the record.

A state granted water right is an expressed precondition to entering into a federal water service contract. Throughout the EIS process the Bureau of Reclamation, far from indulging in so-called conspirational or cooperative conduct with ETSI was essentially precluded from more active involvement until the availability of a water source concerning which the Bureau would have a marketing role became more of a practicable reality.

Very truly yours,

W. E. Linsenbard

WEL:ap

Senator **Wallop**. One last thing—would it be your recommendation that we await the Nebraska decision, *Sporhase,* before we move this much farther?

Mr. **Trelease**. Well, I think I am in disagreement with Mr. Widman on that. I see no harm in passing this law before *Sporhase* is decided. *Sporhase* will saddle the question of whether or not a particular Nebraska statute is constitutional or not in the absence of legislation such as this.

I really do not see that there is any harm in saying that these laws will be considered constitutional if used for this purpose, which is a different purpose from the *Sporhase* case. This would largely obviate the necessity or the temptation to engage in litigation involving the Montana law or the Wyoming law or the South Dakota law, and Gary [Widman], your worry that they might decide it on some other ground escapes me.

Mr. **Widman**. Well, some of the arguments that have been raised there have suggested that some types of water rights are required to be used on the land, and those limitations raise questions about taking of property without compensation.

There are some other minor Constitutional law questions in the case. I think I agree with you in that it probably would be decided on the interstate commerce issue, and there would most likely be no difficulty in going ahead with legislation, assuming that the decision rested entirely on that ground. But given the fact that the decision is due any day now, and ordinarily the Supreme Court doesn't go past the middle of July, and since they usually try to finish their work in June, it seems to me that you might not want to come up with a final product until that decision comes out.

Senator **Wallop**. I want to thank you.

[Subsequent to the hearings Mr. Trelease submitted the following:]

McGEORGE SCHOOL OF LAW

UNIVERSITY OF THE PACIFIC 3200 Fifth Avenue, Sacramento, California 95817

1982 JUN 18 AM 10 31

June 17, 1982

The Honorable Malcom Wallop
United States Senate
204 Russell Senate Office Building
Washington, D.C. 20510

Dear Malcom:

I very much appreciated the opportunity to testify on the water rights aspects of the coal slurry pipeline bill, since it allowed me to restate a warning I have tried to make before, that without something like Section 6 of S. 1844, the attempts of the western states to put special controls on interstate slurry pipeline's water rights are probably doomed to failure. With S. 1844, however, the states' efforts to manage the development of their coal and water resources should be secure from any challenge that they impose impermissible burdens on interstate commerce.

I had not intended to write anything further for the record, but I have just read the statement submitted by the Attorney General for the State of Wyoming, and I cannot refrain from answering it. General Freudenthal says that "the language of the bill may be inadequate to fully protect state water rights". He bases his objections on the same cases we have discussed before - First Iowa, not at all like your bill, and Arizona v. California, reputiated in California v. U.S.. Then, rather amazingly, he twists New England Power Company (very much in favor of your effort) into an argument against it. He does this by saying that the Supreme Court rejected New Hampshire's argument that Section 201(b) of the Federal Power Act "saves" state law regulating the exportation of hydroelectric energy and enables the state to place a ban on the exportation of power. That is not an accurate characterization of the statute involved. The 1939 amendment to the Act provided that it "shall not ... deprive a state or state commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a state line". The New Hampshire Commission ordered the power company to discontinue exporting power, on the ground that the use within the state of the company's cheap power would cause the savings to inure to the benefit of the power customers within the state. This order, said the Supreme Court,

was "simple economic protectionism," and an impermissible burden on Interstate Commerce. The order would have been unlawful before passage of the Federal Act, and it was still unlawful after the passage of the Act. If New Hampshire had had lawful regulations (on matters such as dam safety, power line construction), those would have been saved from usurpation by the Federal Act. In otherwords, the Federal Act did not make anything unlawful that had previously been lawful. But it did not do the reverse, and make lawful what was unlawful. This is exactly what Section 6(b) is attempting to do, and this the Supreme Court said in that case could be done if the correct language was used -- which Section 6 does.

Any good lawyer can state a position so that it sounds reasonable at first blush. Any while there may be two sides to any argument, often one is clearly right. General Freudenthal attempts to raise a doubt as to the ability of Congress to permit a state to place a burden on interstate commerce. But that doubt seems clearly overridden by the great weight of authority. The opposing arguments in favor of congressional authorization of state regulation of commerce were set out by myself, Mr. Clyde and Mr. Widman at the June 8th hearing, and are further supported by the Vinson and Elkins memorandum of February 21, 1981, and the House Interior Committee Staff report to Representative Udall dated December 21, 1981.

What General Freudenthal does not seem to realize is that state water law is now endangered and that your bill represents that the best effort to save it. He, and others, argue that it "may be insufficient" to "protect other prior rights". He offers nothing better, and right now, in my belief, the Wyoming restrictions are almost certainly invalid under the last position taken by the Supreme Court in the affirmance of the Texas-Oklahoma case, Altus v. Carr. Even if the Court were now to approve the Nebraska restriction in the Sporhase case there would still be doubt as to whether the Wyoming statute and South Dakota procedures are more like the Texas case than the Nebraska case.

His arguments are not objections to passage of S. 1844, but challenges to the draftsman to use the proper language in the present bill. It is my belief that in its present form, or as improved by suggested amendments, Section 6 is more than a "savings clause", it is a "constitutionalizing clause" that gives congressional approval to otherwise invalid state laws. I still believe that S. 1844 will meet your requirements for state law protection and at the same time eliminate further constitutional objections.

Sincerely yours,

Frank

Frank J. Trelease
Professor of Law

FJT/yh

Senator **Wallop**. I want to thank you all. I would say this—it is obvious from the testimony earlier, and this has always been, that the issue of water is recognized by virtually everyone as a critical issue and virtually everybody who either comments on the water scene or who is obliged to make some decisions on it seeks to wear the campaign ribbon, but they have not always been involved in combat to the extent that they deserve, I wish some of our colleagues had been here to hear this panel. It has been most interesting, and I very much appreciate your willingness to come here and give us your testimony on these questions.

Thank you, and again, the hearing record is open for two weeks and we will ask if we may to submit some questions to you for the record.

[Whereupon, at 12:45 p.m., the hearing was adjourned.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

U.S. Department of Transportation
Office of the Secretary of Transportation

400 Seventh St., S.W.
Washington, D.C. 20590

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
JUL 6 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
Chairman, Committee on Energy and
Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This is in response to your request for the views of the Department of Transportation concerning S. 1844, a bill

> "To facilitate the national distribution and utilization of coal."

The purpose of the bill is to grant the Federal power of eminent domain to those interstate coal pipeline distribution systems that are determined to be in the national interest by the Secretary of Energy or his successor.

The Administration supports competition in the fields of energy development and transportation. Coal slurry pipelines should be allowed to compete on their own merits as contributors to improving America's energy situation.

However, we cannot support the extension of Federal powers of eminent domain to assure right-of-way acquisition for these pipelines. The Administration is committed to the transfer of decisionmaking from the Federal Government to the States. By the same token, eminent domain authority should remain at the State level except in instances of overriding national necessity. The present case is not considered to represent one of those instances.

The Office of Management and Budget has advised that, from the standpoint of the Administration's program, there is no objection to the submission of this report for the consideration of the Congress.

Sincerely,

John M. Fowler

John M. Fowler
General Counsel

GENERAL COUNSEL OF THE
UNITED STATES DEPARTMENT OF COMMERCE
Washington, D.C. 20230

1 JUN 1982

Hon. James A. McClure, Chairman
Committee on Energy and
Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This is in response to your request for the views of the Department of Commerce on S. 1844, a bill -

> "To facilitate the national distribution and utilization of coal."

S. 1844 would permit the exercise of the power of eminent domain over private lands by "any person proposing to build an interstate coal pipeline distribution system, the construction of which has been determined by the Secretary [of Energy] to be in the national interest... ."

The Reagan Administration fully supports the principle of free competition in the transportation of coal. Coal slurry pipelines may provide valuable competition in this important area. However, it is the view of the Administration that the use of Federal eminent domain is inappropriate where, as here, important rights of the states are at issue. The Department of Commerce therefore opposes S. 1844.

It is the view of this Department that market demand and proper economic conditions will ensure the construction of those coal pipelines which are cost-effective and will best serve the public interest.

We have been advised by the Office of Management and Budget that there is no objection to the submission of this letter to the Congress from the standpoint of the Administration's program.

Sincerely,

Irving P. Margulies
for Sherman E. Unger
General Counsel

MARK O. HATFIELD, OREG., CHAIRMAN

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United States Senate
COMMITTEE ON APPROPRIATIONS
WASHINGTON, D.C. 20510

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FOR RECORD

May 18, 1982

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES MAY 26 1982
RECEIVED
MAY 26 1982
WASHINGTON, D.C. 20510

The Honorable James ~~McClure~~
Chairman
Energy and Natural Resources Committee
United States Senate
Washington, D.C. 20510

Dear Jim:

I recently cosponsored S. 1844, the Coal Distribution and Utilization Act of 1981. One of the problems constraining the increased development and use of coal domestically and the universal export of domestic coal is the high transportation cost associated with coal use. I feel this legislation addresses that problem in a manner that is consistent with the sound economic principles and national energy policy. S. 1844 will allow interstate coal pipelines to compete with the railroads for coal haulage. That competition will result in lower costs for consumers, greater markets for coal producers and better business practices by the railroads.

Before cosponsoring this legislation, I had to satisfy my concerns in two areas. First, should eminent domain authority be granted by the Federal government rather than the states? Second, is the ability of a state to determine whether or not to allocate water to a coal pipeline fully protected by this legislation? I am satisfied that eminent domain authority for these interstate systems must be granted at the national level. I am equally satisfied that Section 6 of S. 1844 assures that the states will be able to determine whether or not to allocate water resources to coal pipelines without fear that their judgments will be overridden by Federal intervention or judicial action. I will not amplify on either of these points, as I am sure that your hearings will produce supporting testimony from the individuals that have attempted to build these pipelines without Federal eminent domain and from water law experts.

Jim, I would ask you and the members of your Committee to assure that the eminent domain authority in S. 1844 will extend to certain coal pipelines that could be constructed in Alaska. Alaska enjoys vast coal reserves. However, the only viable transportation alternative for some of this coal will very likely be coal pipelines. Therefore, I would ask that the eminent domain authority in S. 1844 is available to those coal pipelines that will transport Alaskan coal to export facilities, to port facilities for transshipment to the continental United States or Hawaii and through Canada to the continental United States. Those coal pipelines that move Alaskan coal merely to another point in Alaska should obtain eminent domain authority from the State of Alaska.

Finally, I encourage you and your Committee to report this legislation to the Senate at the earliest possible date so that S. 1844 may be enacted this Congress.

With best wishes,

Cordially,

TED STEVENS

STATEMENT BY
SENATOR J. JAMES EXON
ON
S. 1844
RE: COAL SLURRY LEGISLATION
BEFORE THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
JUNE 8, 1982

MR. CHAIRMAN and Members of the Senate Energy Committee, I am pleased to have this opportunity today to express my concerns regarding the pending legislation, S. 1844, which seeks to grant the federal power of eminent domain to coal slurry projects.

As a former governor of eight-years, I have had the fortunate experience to know my state's water needs and the resources which are available to meet those needs. As with many Plains and Western agricultural states, water is the lifeblood of the farm economy. This is why proposals such as S. 1844 must be closely scrutinized to ensure that the scarce and vital water resources of this region are protected from indiscriminate waste; and that the states' rights and prerogatives to protect their water resources are not abridged.

In this regard, I am not convinced that the language of the "states' rights" provision of S. 1844, adequately protects and preserves the states' prerogatives in water allocation from federal preemption. Despite earnest attempts by the sponsors of this measure, as well as previous coal slurry legislation, to address this issue I share in the belief that it is doubtful that any provision, no matter how carefully and artfully drafted, can sufficiently minimize the states' exposure to the risk of forfeiting important water rights in the face of this eminent domain legislation.

COMMERCE CLAUSE COURT CASES

It seems inconsistent to this Senator that on the one hand we are giving coal slurry pipelines a "national interest" designation while at the same time determining the important water interests at stake under individual state law. Courts, I am afraid, would interpret this conflict in favor of the overriding national interest.

As many on this Committeee are aware, the U. S. Supreme Court has touched on this matter in the 1946 case of First Iowa Hydro-Electric Cooperative.

Although this case dealt with the State of Iowa's licensing requirements for dam construction and operation, it is significant that the Court construed a "preservation of states' rights" clause in the Federal Power Act and despite clear language, found that it did not prevent the federal government's preemption of the state's water laws because the state law frustrated an overriding "national policy" to "secure a comprehensive development of the water resources of the nation." The Federal Power's Act's savings clause, Section 27 of that Act, states specifically:

> That nothing herein contained shall be construed as affecting or intending to affect or in any way to interfere with the laws of the respective States relating to the control, appropriation, use, or distribution of water used in irrigation or for municipal or other uses, or any vested right acquired therein.

Also similar to the Federal Power Act, S. 1844 has identified the development of coal slurry pipeline projects to be in the "national interest" in an effort to utilize domestic coal reserves and reduce the "national security risks" of our continuing dependence on imported oil. Furthermore, having the Secretary of Energy determine the national importance of the project would only add further weight to this designation.

I am concerned that conflicting state water laws may fall prey to similar "national policy" concerns expressed in the First Iowa case.

Additionally, the Court, in this case, declared that Congressional authority under the Commerce Clause is complete, noting that, "states possess control of the waters within their borders, subject to the acknowledged jurisdiction of the United States under the Constitution in regard to commerce and the navigation of the waters and rivers."

Here the Court confirms the federal power over water allocation within a state, noting as well the appropriation of surface waters.

This aspect of the First Iowa decision raises added concerns regarding a grant of federal eminent domain authority to coal slurry projects and also the federal appropriation of surface waters as well as groundwater resources employed in slurry transportation.

FEDERAL RESERVED WATER

Of additional concern is the application of the federal reserved water rights doctrine.

It is unclear whether the language in S. 1844 would address the issue of whether federal eminent domain authority granted to coal slurry pipelines would extend the reserved water rights doctrine. Solicitor's opinions and court cases have, as this Committee well knows, extended such rights to the extent necessary to fulfill specified Congressionally authorized purposes.

Court cases have also indicated that the federal power of condemnation also includes the condemnation of water rights.

SHARED WATER RESOURCES

A major concern to this Senator focuses upon the apparent failure of S. 1844 to address the issue of shared water resources.

Section 6 of S. 1844 appears only to require that the substantive and procedural law of the state in which the pipeline originates need to be followed.

Would neighboring states sharing the same groundwater aquifer, or those downstream states in the case of surface waters, have standing under the "states' rights" clause of S. 1844 to object to a water diversion? How would S. 1844 address interstate compacts regarding shared water resources?

This issue is not a matter of mere conjecture or potential concern. This is a matter of immediate concern to many states in the Midwest in light of South Dakota's recent, precedent-setting decision to sell 50,000 acre-feet of water from the Missouri River to the ETSI coal slurry project. The downstream states are concerned about the effect of this "first in the nation" sale of water on both current and future needs.

The Department of the Interior is now reviewing for approval the water service contract between the Bureau of Reclamation and the ETSI pipeline company, for the withdrawal of 20,000 acre-feet of water per year from the Bureau's Oahe Reservoir in South Dakota. Groundwater from the Madison Formation will serve now as a back-up source for this project.

Water for the $1.4 billion sale comes directly out of the Missouri River. While it represents a small diversion of that river's water, it inaugurates a distressing precedent which can only be further aggravated by the passage of federal eminent domain authority for coal slurry pipelines.

Although the Missouri Basin states have been considering a compact on the use of the shared Missouri River waters, no such compact exists today.

I do not believe that S. 1844 addresses such a situation at all.

MIDWEST WATER DEMANDS

Tremendous demands are being forced upon the Missouri River's resources today by all of the bordering states.

For example, many agricultural states which share the resources of the Ogallala Aquifer are looking to the Missouri River as a source of replenishing the dropping groundwater table. A recent report of the High Plains Study Council and the Corps of Engineers has indicated that nearly 4-million acre-feet of new water will be needed annually in Nebraska and Kansas alone by the end of this century to prevent agricultural lands from going out of production.

Presently, due to increasing world food demands, the states of North Dakota, South Dakota, and Nebraska are projected to increase current irrigation activity which could consume an additional 2-3 million acre-feet of Missouri River water.

Synthetic fuel projects are projected to consume some additional 4 million acre-feet of water.

Barge traffic on the lower Missouri River has already had to be curtailed, and a Corps of Engineers study has indicated that competing uses of the river's water is increasing so fast that navigation will have to be curtailed even further in the future.

The Missouri Basin States Association recently published a state-by-state breakdown of some 80 proposed withdrawals of river water in excess of 5,000 acre-feet a year by 8 association states.

Montana: 25 agricultural projects.
South Dakota: 5 energy, 4 municipal-industrial, 3 agricultural-municipal-industrial, 2 agricultural projects.
North Dakota: 2 energy, 2 agricultural-municipal-industrial,1 municipal-industrial, 1 agricultural.
Wyoming: 11 agricultural, 2 municipal, 1 energy, 1 agricultural-municipal-industrial, 1 agricultural.

Nebraska: 5 agricultural, 1 agricultural-municipal-industrial.
Colorado: 1 agricultural, 1 municipal-industrial, 1 fish-wildlife-recreation.
Kansas: 5 municipal, 1 agricultural-municipal-industrial.
Missouri: 2 municipal-industrial.

I believe it is clear that these competing present and future uses for water go far beyond the scope of currently planned projects and water uses.

The states will have to come to grips with these conflicts. State water law in the west is only now in its beginning stages of sophistication. I can't imagine that the federal government would tread into this area of water law before the states have themselves settled the important issues involved. More than a single state's interest is at stake here.

Even now, the issue of a state's right to regulate the diversion or export of water from the state is pending before the U. S. Supreme Court.

The ETSI project represents only 1 of some 13 proposed slurry plans nationwide. These proposals will certainly add to the unprecedented demands upon shared water resources.

Furthermore, the export of water which will not be returned to the river basin of origin, raises additional policy concerns. What happens to that water at the end of the pipeline?

THE EXTENT OF STATES' RIGHTS

An additional question which focuses upon the adequacy of the "states' rights" clause of S. 1844 and the proposed amendment concerns the extent to which this savings clause actually preserves state water prerogatives.

The language of Section 6 of the bill is unclear regarding the situation where once water rights are granted by a state to a federally sanctioned coal slurry pipeline using the authority proposed in S. 1844, whether a state loses its ability to subsequently restrict or terminate the pipeline's water allocation in favor of other more preferential uses such as irrigators.

Would such an action by a state be deemed an unreasonable burden on interstate commerce? Would the state's authority be preempted in favor of an overriding national interest?

A 1978 Office of Technology Assessment (OTA) report noted further concerns about the extent to which states' rights in water issues must be considered.

The report indicated a need to address the extent of state involvement where water is distributed from a federal source such as a Bureau of Reclamation project.

The report further stated the need to address the use of navigable waters for coal slurry pipelines and the need to compensate private users of those waters.

Finally, the OTA report recommended to the Congress that, any federal legislation to provide eminent domain authority to coal slurry pipelines should "express in specific terms exactly what the state administrators may do to control water for the pipeline."

I believe that the "states' rights" clause of S. 1844 fails to heed this recommendation.

WATER AS A CASH COMMODITY

Aside from concerns about the adequacy of the "states' rights" savings clause of S. 1844, I am concerned about the effect of the coal slurry pipeline concept upon the integrity of water rights.

Are we creating a new class of "water brokers," where successful high-bidders offer their surplus to other water users?

Are we turning water into a cash commodity for the highest bidders? Are we putting a price-tag on water, and allocating supply on the principle of ability to pay?

For example, the ETSI pipeline project only requires some 20,000 acre-feet of water. However, the pipeline bought nearly twice that amount of water, 50,000 acre-feet. Whether ETSI intends to sell this excess amount and profit from the sale to other cash-bidders is uncertain.

Under such a scheme, agriculture can only be the loser as more cash-rich energy firms out-price traditional farm needs.

In the past, the allocation of our scarce water resources has been made outside of the market pricing system. Public policy has been the major determinent of water allocation.

The West and Midwest region's sparse water, however, is becoming more valuable in market pricing terms for the extraction and use of minerals than for farming. Water is now on the auction-block.

Finally, I believe that it is important to ask whether eminent domain legislation is needed in order to allow the so-called "market" to determine the most efficient mix of transportation for coal. I would note, as an example, that the ETSI system has obtained nearly 80% of its needed rights of way without federal eminent domain sanctions.

CONCLUSION

To conclude, I believe that this Committee must weigh how federal legislation enacted pursuant to the commerce clause has already penetrated deeply into areas once held to be the prerogative of state government.

Federal legislation granting eminent domain authority to the coal slurry pipeline would seriously compromise the long standing integrity of state control of water resources as well as the integrity of our precious water itself.

In light of the commerce clause implications inherent in designating coal slurry pipelines as national interest projects empowered with federal eminent domain authority, no language asserting a states' rights savings clause can adequately clarify and preserve the states' water rights beyond a reasonable doubt.

For this reason, I believe that S. 1844 must be rejected.

I thank the Committee for considering these matters.

Testimony By
Honorable Doug Bereuter
Before The
Subcommittee on Public Lands and Reserved Water
Committee on Energy and Natural Resources
United States Senate
June 8, 1982

Mr. Chairman and members of the Subcommittee, I would like first of all to commend you for taking the initiative to conduct these important hearings on the affects of coal slurry pipelines upon the scarce water supplies of the western states. I appreciate the opportunity to submit a statement to this panel to voice the deep concerns which many of these states have raised regarding the excessive amount of water required by this form of coal transportation. I know that you, Mr. Chairman, and other members of the Subcommittee share that concern, and I am pleased to join with you in an effort to provide the needed protection of the water rights of the individual states.

Mr. Chairman, the legislation which the Subcommittee has before it, S. 1844, and the corresponding bill in the House, H.R. 4230, have been the subject of much Congressional attention over the past several years. Basically, the legislation authorizes the use of Federal eminent domain for the acquisition of public and private property for rights-of-way for coal slurry pipelines. As you know, coal slurry interests have in many instances been unable to obtain the right to cross privately-held property, most notably that owned by the railroads. Rather than pursuing the right of state eminent domain in each of the individual state legislatures, however, coal slurry interests initiated efforts to acquire the power of Federal eminent domain from the Congress, thus effectively sidestepping any conditions upon their use of eminent domain power which the states, in order to protect their resources, might have imposed. Mr. Chairman, I believe that in most cases, and particularly in this case, the power of eminent domain should rest with the individual states, in accordance with the doctrine of states' rights. I am extremely pleased that the

Reagan Administration shares that belief and has come out in opposition to this legislation.

While the matter of states' rights regarding the power of eminent domain is an extremely important question, an even more basic issue is raised by this legislation. Mr. Chairman, the ability of each of the individual states to protect its precious water resources would be put in serious jeopardy if this legislation were to pass the Congress in its present form. While the legislation clearly does not allow the use of Federal eminent domain to secure water rights, nothing in the bill precludes any state from selling or otherwise transferring either surface or subsurface water for this purpose without obtaining the approval of other states which may be adversely affected by that transfer. In effect, passage of this legislation will facilitate the efforts of those states which are willing to provide the water for coal slurry pipelines to ride roughshod over the legitimate water claims of those states with which they share valuable water resources, with no recourse for those states which are thus affected. Without some added measure of protection for those states which may be adversely affected by another state's sale of massive quantities of either surface or subsurface water, we will have set the stage for a major water war in the West.

When the House version of this bill was before the Committee on Interior and Insular Affairs, I made an effort to add language which would have required the existence of interstate water compacts between affected states governing the sale or other transfer of shared water resources for use in coal slurry pipelines.

AMENDMENT TO H.R. 4230

OFFERED BY MR. BEREUTER

Page 13, after line 12, insert the following new subsections and redesignate subsection (c) on line 13 as subsection (e):

(c) In the case of a coal pipeline which may be used to transport coal over, under, upon, or through more than one State, and for which a certificate was issued under section 10952 of Title 49 of the United States Code, no groundwater may be used by that pipeline unless the Secretary of the Interior determines that --

(1) the only source of any groundwater used by such pipeline will be an aquifer which is located under a single State, or

(2) the source of groundwater used by such pipeline will be an aquifer which underlies more than one State and there is in effect an interstate compact between the States concerned which governs the use by the pipeline of the groundwater from such aquifer.

(d) In the case of a coal pipeline which may be used to transport coal over, under, upon, or through more than one State, and for which a certificate was issued under section 10952 of Title 49 of the United States Code, no surface water may be used by that pipeline unless the Secretary of the Interior determines that --

(1) the only source of any surface water used by such pipeline will be any body of surface water which is located in a single State, or

(2) the source of any surface water used by such pipeline will be any body of surface water which is located in more than one State, and there is in effect an interstate compact between the States concerned which governs the use by the pipeline of the surface water from such source.

My amendment was defeated in the Interior Committee, but when it was offered again in the Surface Transportation Subcommittee of the Public Works Committee, it narrowly failed on a 15-15 tie vote, and several members have indicated their willingness to offer the amendment again in full Committee mark up, if and when the full Committee schedules any further activity. If the amendment fails in the full Committee, I and others are prepared to offer it on the floor of the House, if necessary. Mr. Chairman, the allocation of precious water resources is properly a matter for the states to resolve among themselves, without federal intervention, and our efforts must be directed towards a satisfactory resolution of this most important issue.

Another related question must be addressed in the context of any discussion of the granting of Federal eminent domain for coal slurry pipelines. Given the political and economic realities of these pipelines, and assuming that these multibillion dollar investments are made to transport coal, what will happen in the event that water from the original source becomes unavailable? It is a certainty that the Congress would, in that event, extend the eminent domain power contained in this bill to allow these entities to condemn water so that they could continue to operate. The inevitable result will be to pit the water interests of the western states against the energy interests of those states which receive the benefits of the pipelines.

I believe that the supporters of this legislation do not fully understand all of the implications and possible results of passage of this measure. Without adequate protection for state water rights the awesome power of Federal eminent domain should not be granted lightly nor exercised freely, particularly in the case of coal slurry pipelines. This mode of transporting coal has such a serious and far-reaching impact on water resources and the environment in general that these serious reservations simply must be satisfactorily resolved before this legislation can become law.

Mr. Chairman, perhaps the best example of the serious problems raised by coal slurry pipelines is the experience of Energy Transportation Systems, Incorporated (ETSI) in its efforts to build a pipeline from Wyoming to Arkansas. I know that you are thoroughly familiar with ETSI's attempts to obtain the rights-of-way for its line, and the many serious obstacles it has encountered in its efforts to obtain the required water for its operation. The bitter controversy which this project has engendered is only the tip of the iceberg, Mr. Chairman, if this legislation to facilitate the construction of these pipelines is approved by the Congress in its present form. We must ensure that the interests of all the affected states are adequately protected from the adverse impacts of these sales of such large quantities of water for energy production and transportation. The bill which is before this Subcommittee utterly fails to provide that protection. I urge this panel to move forward in adding the necessary language to the bill or , in the alternative, to defeat it altogether. Again, I appreciate the Subcommittee's interest in this critical issue and the opportunity to express my views.

STATEMENT OF REESE H. TAYLOR, JR.
CHAIRMAN, INTERSTATE COMMERCE COMMISSION
BEFORE THE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
ON COAL SLURRY PIPELINES

record

May 10, 1982

Mr. Chairman and Members of the Committee:

The Commission has testified a number of times over the past several years on the subject of coal slurry pipelines. Most recently, we testified on December 9, 1981, before the Surface Transportation Subcommittee of the House Committee on Public Works and Transportation on H.R. 4230. These comments will discuss both H.R. 4230 and S. 1844, the "Coal Distribution and Utilization Act of 1981."

As you know, the question of coal slurry pipelines involves a complex set of issues -- including land management, environmental concerns, water rights, and transportation. In deciding whether the Federal government should provide certain economic interests with the substantial right of eminent demain, Congress must address and balance all of these concerns, and make the ultimate decision on this important policy question. It is, of course, the transportation issues relating to coal pipeline development that are of fundamental concern to the Commission.

If Congress should decide to grant the right of eminent domain to coal pipeline operators, the Commission favors the approach of H.R. 4230 over that of S. 1844. H.R. 4230 would give the Commission the authority, after making specified findings, to issue a certificate for the construction or extension of a coal pipeline. S. 1844 would give authority to the Secretary of Energy to determine whether the construction of a pipeline is in the national interest. Once such a determination is made, a person proposing to build a coal pipeline distribution system could then acquire rights-of-way over private lands by exercising the Federal power of eminent domain. Because we believe that the transportation considerations are foremost in the certification process for coal pipelines, we advocate the position taken in H.R. 4230, as opposed to S. 1844.

The responsibility for certifying coal pipelines requires a careful balancing of competing interests in order to ensure that the proposed service will further the goals of the national transportation policy. The Commission has the expertise and experience required to accomplish this task. In this regard, we would point out that various aspects of coal pipeline operations, such as rates, are already subject to Commission regulation.

One of the concerns raised regarding coal pipeline develpment is the potential impact on rail carriers, since coal slurry represents a significant source of potential competition for a very important portion of rail traffic. In some instances, coal pipelines could help this nation make the most efficient use of our domestic coal reserves. In other instances, alternative modes may prove to be the most efficient. Under H.R. 4230, the Commission would regulate the operations of both coal pipelines and the railroads; this should allow these two industries to compete fairly and effectively.

One of the major issues regarding coal slurry pipelines which must be resolved is the common carrier obligation. In essence, this obligation requires a common carrier to provide transportation or serivce on reasonable request. Under existing law, this obligation would be placed upon coal slurry pipeline operators. It is our understanding that, due to the size of the capital investment involved, uninterruptible long-term contracts may be essential in order to obtain financing to construct a slurry pipeline. This might be construed to conflict with the common carrier obligation, particularly if the contracts are for the entire capacity of the pipeline.

S. 1844 does not address this issue. Practically speaking then enactment of S. 1844, without some clarification of the contract and common carrier obligation issues, probably would not achieve its intended purpose of encouraging the contruction of coal slurry pipelines, as set forth in section 2 of the bill. H.R. 4230, as reported by the House Subcommittee on Surface Transportation, on the other hand, specifically addresses the unique situation of pipelines. Basically, the House bill allows coal slurry operators to elect to provide all or part of the transportation under contract, and it sets forth provisions and procedures designed to ensure that all potential shippers will be treated fairly and on a non-discriminatory basis. In general, we believe these provisions present a workable approach to the issue of common carrier responsibility.

In conclusion, the Commission takes no position on whether the right of Federal eminent domain should be granted to coal slurry pipeline operators. With regard to the transportation issues involved, if the Congress believes Federal eminent domain should be provided, the Commission prefers the approach of H.R. 4230, which gives the ICC certification authority and also attempts to resolve the common carrier issue.

Jackie Swigart
SECRETARY

John Y. Brown, Jr.
GOVERNOR

COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
OFFICE OF THE SECRETARY
FRANKFORT, KENTUCKY 40601
TELEPHONE (502) 564-3350

June 8, 1982

ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 10 1982
WASHINGTON, D.C. 20510

Honorable Wendell Ford
United States Senator
Room 4123 Dirksen Senate Office Bldg.
Washington, D.C. 20515

Wendell

Dear Senator Ford:

In response to a request from Don Graves to John Smither, Director, Division of Water, the Department has prepared the attached remarks for inclusion in the official congressional hearing record on Senate Bill S. 1844. The bill is currently being considered by the Senate Energy Committee, and the Kentucky Department for Natural Resources and Environmental Protection would appreciate having you or your staff enter these comments as a part of the committee's official record of consideration.

If you or your staff should have any questions relating to the attached remarks or wish to discuss the four issues raised by the Department's comments, please feel free to contact me.

Sincerely yours,

Jackie Swigart

Jackie Swigart
Secretary

JS:sbw

Attachment (1)

cc: John T. Smither (w/Attachment)
T. James Fries (w/Attachment)

The Kentucky Department for Natural Resources and Environmental Protection has four major concerns relating to the development of a coal slurry pipeline transportation network in the state. In order of priority, the four are (1) water rights issues, (2) water availability or quantity problems, (3) water quality problems, and (4) local water infrastructure problems associated with project construction. The Department's concerns for the four priority issues are presented in the following summary statements.

(1) Water Rights

The Kentucky Division of Water is seriously concerned that pipeline development will cause several extremely difficult water rights problems. These include interstate water use withdrawal disputes on boundary rivers, the diversion of water between basins and out-of-the-state, pre-emption of existing entitled and established uses, and intense competition between potential future users for temporally paramount allocations. In this regard, the Division believes that the current framework of Kentucky's water law and use permitting systems is not capable of adequately addressing these problems.

(2) Water Quantity

Kentucky's concern for the impact of pipeline development on water availability or quantity can be separated into three parts. First, while the actual amount of water to be withdrawn to operate a pipeline system may appear to be relatively small (for example, between 40 and 75 cubic feet per second for the proposed Kentucky pipelines), the continuous removal of such volumes from almost any state stream or river, including major reaches of the Ohio River, could cause federal and state water quality standards to be violated. Withdrawal of water amounts beyond those reserved for waste assimilation (water quality maintenance) could also cause already permitted dischargers to exceed instream criteria, require that existing discharge limits be made more stringent, and necessitate that more costly wastewater treatment technology be installed and used.

Second, the quantity of water necessary for slurry transport initiation or pumping station make-up may not be available in significant portions of the state to be served by the proposed pipeline network. In those cases, supplemental storage on impoundment of water would be necessary. Unfortunately, few suitable sites for storage reservoirs exist.

Third, even where adequate quantities of water are available, the water may already be allocated to other instream and offstream uses. In addition, the temporal reservation of water for future anticipated uses, such as synthetic fuel facilities, may present an unresolvable competitive conflict in several Kentucky river basins.

(3) Water Quality

Development of a coal slurry pipeline system in Kentucky has the potential to create a number of water quality and environmental problems. While water pollution treatment technology for the coal preparation plant associated with the pipeline loading or entry point is reasonably well established, the Department anticipates that the following water quality impacts will result:

- major wetland areas, valuable for natural water purification and habitat, may be irreparably damaged;
- emergency spills may occur;
- surface water and groundwater may be contaminated by leakage or overflows from make-up and slurry dump ponds at pumping stations;
- necessary wastewater treatment may be difficult to provide at pumping station locations; and
- water quality may be degraded through withdrawal of surface water or groundwater for use in pipeline transport.

(4) Local Water Infrastructure

Undertaking construction of any massive project invariably requires that local water supply and wastewater services be temporarily expanded to accomodate the needs of a transient labor force. Given (a) major reductions in the availability of federal funds to support water infrastructure development, (b) the time delay involved in making new water service systems operational, even if funds are available, (c) the financial and political undesirability of investing limited local revenues to provide expanded services for only a short-term period with repayment responsibilities falling to base users, and (d) the possibility of diverting available resources from the resolution of higher priority problems, Kentucky believes that the full range of socio-economic problems associated with project construction, which will predominantly affect rural areas and communities in the State, should be identified and assessed sufficiently in advance of project initiation to allow appropriate preventative and corrective responses to be pursued. Further, it would be entirely desirable to assign some reasonable portion of the costs associated with infrastructure expansion to the project advocate or sponsor.

In conclusion, the Division of Water believes that establishment of a slurry transport system has the potential to cause serious adverse water impacts. However, it is also the Division of Water's opinion that all of the points raised in the preceeding sections should be (and can be) addressed sufficiently in advance of project initiation to ensure that all potential water resource problems be avoided or that compensatory mitigation be provided.

Attorney General of Missouri

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JOHN ASHCROFT
ATTORNEY GENERAL

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ADDENDUM TO STATEMENT OF JOHN ASHCROFT, ATTORNEY GENERAL OF MISSOURI
U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
HEARING ON S.1844, MAY 10, 1982

INTRODUCTION

On May 10, 1982 John Ashcroft, Attorney General of Missouri presented written and oral testimony to this committee on S.1844 which authorizes federal eminent domain powers for coal slurry pipelines. One of the points made during that testimony was that S.1844's federal sponsorship of this new interstate water use could preempt states from controlling their own water resources. Considerable interest was expressed as to whether this threat to state's water rights could be avoided by drafting special language into S.1844. In order to respond to that concern, we have prepared the following short analysis of whether S.1844 can be written so as to fully protect state control over water resources.

The existing language of S.1844 claims to preserve state water rights in the face of a federal plan to encourage and authorize coal slurry pipelines. However, the underlying purpose of the bill is to transport coal using water as the means of such transport. Such a plan inescapably leads to taking water from one state and transporting it to far distant states and regions. If a state is able to frustrate the pipeline company's ability to obtain the water, the purpose of the entire bill will be frustrated. Thus, there is considerable concern over who would win a future court battle on S.1844: a state protecting its water resources or a pipeline wishing to ship those resources in interstate commerce.

JUDICIAL INTERPRETATION OF SAVING CLAUSES

The courts will measure a state law affecting interstate commerce against Congress' power under the Commerce Clause of the Constitution. If the state law does not conflict with an act of Congress, a state may "affect interstate commerce or even, to some extent, regulate it". Southern Pacific Company v. State of Arizona, 325 U.S. 761 at 767 (1945). However, if a state law in "its terms or in its practical administration, conflicts with the act of Congress, or plainly and palpably infringes its policy" that state law will be held to be preempted by the federal law, 325 U.S. at 766.

Some proponents of S.1844 argue that states' control over water resources, and thus, the regulation of the pipeline coal moving in interstate commerce, can be accomplished by the addition of specific statutory language. This language would explicitly preserve or "save" state water rights in the face of this federal plan for interstate shipment of coal. However, court decisions show that the actual preservation of states' rights pursuant to such saving clauses has been extremely limited.

Saving clauses are interpreted so as to preserve the goals that the courts perceive Congress intended by the bill. The saving clause will not be interpreted to allow a state law to defeat federal policy, even where the plain language of the bill might indicate otherwise. In First Iowa Hyrdo-Electric Cooperative v. Federal River Commission, 328 U.S. 152 (1946), the Supreme Court took a saving clause that could have been interpreted to allow states more control in their own jurisdictions and instead interpreted it to coincide with the federal policy of having the federal government as the sole licensor of the projects at issue.

This limited interpretation of saving clauses even applies where there are broad antipreemptive clauses in the federal law. Thus, a state law may be preserved only if it parallels the purpose of the federal law. Local 246 Utility Workers Union of America, ALF-CIO v. Southern California Edison Company, 320 F.Supp 1262 (C.D. Cal. 1970).

Furthermore, saving clauses are interpreted to preserve existing state regulations, but are not allowed to extend into an area that would not have even existed "but for" a federal statute. Lewis v. B.T. Investment Managers, Inc., 447 U.S. 27 (1980). If interstate commerce by coal slurry pipelines would not exist "but for" federal legislation, no saving clause would allow states to curtail or control the use of their water for such an interstate use.

DRAFTING A SAVING CLAUSE

Even if the theoretical idea of a saving clause is attractive, there still would be the insurmountable problem of trying to draft an effective saving clause for S.1844. There is "no single mechanical formula [that will] summerize the analysis necessary to determine whether a state statute will be void under the commerce clause". Great Western United Corp. v. Kidwell, 577 F2d 1256 (5th Cir. 1978), reversed on other grounds, 443 U.S. 173. Furthermore, a federal statute will be interpreted as it is applied, not as it is written. Jones v. Roth Parking Company, 430 U.S. 519 at 540-541 (1977). In order for the courts to determine how a staute is being applied, they must necessarily look for the full purpose and objectives of the federal law. Hinse v. Davidowitz, 312 U.S. 52 (1940).

In the case of S.1844 it is clear from this statute itself that its purpose and objective is to promote the transportation of coal in interstate commerce by coal slurry pipelines using water as the transportation medium. Furthermore, S.1844 creates a system whereby the federal government sanctions such pipelines in their use of state water resources by determing that the pipeline construction is in the "national interest". S.1844, Section 4.

In the face of such a federal purpose and objective, no saving clause can be drafted which will guarantee that a state can prevent coal slurry pipelines if it so desires: "No state statute can hinder or obstruct the free use of a license granted under an act of Congress". Sperry v. State of Florida, 373 U.S. 379 at 387 (1963).

Even in situations where state action may not be completely foreclosed by federal law, state law will still be void to the extent that it conflicts with federal law and to the extent that it makes the federal law impossible to carry out. Ray v. Atlantic Richfield Company, 435 U.S. 151 (1978). Thus, even if a saving clause can be drafted so as to allow some state regulation, any limitation or outright prohibition of water for federally sanctioned pipelines would necessarily fail.

UNPREDICTABLE NATURE OF FEDERAL PREEMPTION

It must be kept in mind that federal preemption of state laws is "notoriously complicated". Mite v. Dixon, 633 F2d 486 at 490 (7th Cir. 1980). In fact, prior case law is sometimes little or no guide when determining when a state law will fail. This confusion has led one commentator to state: "The Supreme Court...has not developed a uniform approach to preemption; its decisions in this area take on an ad hoc unprincipled quality, seemingly bereft of any consistent doctrinal basis". The Preemption Doctrine; Shifting Prespective on Federalism and the Burger Court, 75 Columbia Law Review 623 at 624 (1975).

Underlying any judicial tests are always the judge's personal weighing of facts which go beyond the issue at hand. 75 Columbia Law Review at 625. For instance, when a court determines that there exist a national emergency, such as an energy crises, the balance tips against state laws that hamper the federal government in addessing that "emergency". Mobile Oil v. Tully, 499 F.Supp. 88 (1980), aff'd 654 F2d 497 (Temp. Emer. Ct. App. 1981).

Here S.1844 specifically states that "the continuing dependence of the United States on foreign sources for petroleum...entails grave national security risks... [and increases] deficits...inflation and unemployment...." S.1844, Section 2(a)(1). This could provide ample incentive for a judge to determine that state water rights could not stand in the way of a project of such national importance.

In the final analysis, federal preemption is such that "no simple formula can capture the complexities of this determination; the conflicts which may develop between states and federal action are as varied as the fields to which Congressional action may apply". Goldstein v. California, 412 U.S. 546 at 561 (1973).

CONCLUSION

The foregoing summary of federal preemption demonstrates that the states cannot be guaranteed control over their water resources in the face of S.1844. No matter how skillfully a saving clause is drafted, the inherent conflict between federally authorized coal slurry pipelines and state's water rights cannot be avoided. These pipelines cannot function without the water presently controlled by the states. If the federal government sanctions the construction of coal slurry pipelines, it must also be sanctioning the use of these water resources.

Furthermore, any attempt to resolve this basic conflict with clever legislative drafting cannot overcome the future obstacles of judicial interpretation. Once a federal interest is defined by legislation, the courts are unlikely to fully perserve local state interests. The complexity of the legal issues in this area means that the future of any statutory language is hardly assured once its submitted to the courts.

The inability to protect a state's water rights in the face of federally sanctioned coal slurry pipelines means that this legislation poses too great a harm. As has been demonstrated during the course of hearings on this bill, the benefits of coal slurry pipelines are not worth the risk of the substantial harm to the power of the states to control their own water resources.

Respectfully submitted,

JOHN ASHCROFT
Attorney General

Stephen P. Krchma
Assistant Attorney General

1896

State of Utah
Office of the Governor
Salt Lake City
84114

Scott M. Matheson
Governor

JUN 14 1982

June 10, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 15 1982
WASHINGTON, D.C. 20510

Senator James McClure, Chairman
Senate Energy and Natural Resources Committee
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator McClure:

I understand that the Senate Energy and Natural Resources Committee has been considering S. 1844, a bill to facilitate the national distribution and utilization of coal, through the granting of eminent domain authority to coal slurry pipelines. As you are aware, the discussion of coal slurry pipelines is of considerable interest to western states where concern about water and the protection of state water right authority is high. I am informed that the Committee will be holding additional hearings this week to focus on the issue of state water rights and the impact of the language currently contained in S. 1844.

The state of Utah has reviewed the language of S. 1844 as it regards state water right authority. We conclude that the language, including amendments proposed by Senator Wallop in late May provides explicit and satisfactory protection for the authority of each state over the allocation of its water resources. Particularly important to our support of this language is an amendment to Section 4 of the bill which would provide that prior to any application to the Secretary of Energy for determination of national interest, the applicant must have secured appropriate state permits and authorizations pursuant to Section 6 of the bill. This establishes the proper sequence of events for consideration of slurry pipeline proposals. Water questions should be addressed and resolved before any consideration of eminent domain authority under Section 4 is possible.

Senator Wallop's proposed amendment to Section 6 regarding the creation of federal reserved water rights is also important and necessary for an acceptable bill.

Senator James McClure
June 10, 1982
Page Two

The state of Utah contains large reserves of high quality coal which could benefit from additional transportation opportunities. We are continuing to review S. 1844 and H.R. 4230 and hope that agreement on all elements of coal slurry legislation can be reached this year.

We appreciate your continuing concern for western states as this legislation proceeds and hope that you will provide us additional opportunities for review and comment if changes in the water rights portion of the act are contemplated.

Sincerely,

Governor

SMM:jb

cc: Senator Garn
Senator Hatch

MAY 14 1982

WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

ED HERSCHLER
GOVERNOR

May 5, 1982

NATE COMMITTEE O
RGY AND NATURAL RESOUR
RECEIVED
MAY 14 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
Chairman
U. S. Senate Committee on
Energy and Natural Resources
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator McClure:

I am writing to express my concern with and opposition to Senate Bill 1844, the proposed legislation which would permit the use of federal eminent domain powers for certain coal slurry pipelines. The questions and problems which have been raised during earlier discussions of coal slurry legislation are still a concern today. These issues must be resolved prior to enactment of Senate Bill 1844.

The issues which must be resolved are:

1. Protection of state water rights
2. Rail transportation
3. Federal eminent domain powers

Water is one of the most precious and sought after resources in Wyoming and throughout most of the western states. Due to the scarcity of this resource, states have developed a set of laws to administer water use and to protect water users. I am very concerned that Senate 1844 has the potential of upsetting the water administration system we now have in place. While I acknowledge and agree with the purposes and intent of Section 6 of the bill, I am not convinced that the courts will respect and enforce the intent of Congress. There are instances where the courts have ignored the intent of Congress on water issues and the states have suffered accordingly. I would suggest that members of the Committee quickly review Committee Print 95-96 for H.R. 1609, the Coal Pipeline Act of 1978, for specific examples.

Another major concern is the volume of water which will be required to satisfy the needs of the coal slurry pipelines which have been proposed for Wyoming. The latest number I have seen is four slurry pipelines using in excess of 80,000 acre feet of water per year. Eighty thousand acre feet of water would meet the municipal water needs of a city of 400,000 people for one year. Further, this would represent a tremendous commitment of a scarce resource from an area which receives about twelve inches of precipitation per year, and if our control over that resource is reduced or jeopardized, it could very well limit or reduce our ability to provide coal and other energy fuels needed by the people of the United States.

I would like to suggest that language be added to expressly provide that in the event the Secretary has granted a right-of-way, but the state has not issued a water right for the pipeline, or the state has applied certain conditions to the water right, that the actions of the state shall not be construed as an undue burden upon interstate commerce. The bill should also clearly state that the granting of a state water right for coal slurry pipeline shall not be construed as commiting that water to interstate commerce.

One coal slurry pipeline may not create severe problems for Wyoming, but we are not talking about one project. As I mentioned earlier, at least four such proposals are being considered. Coal slurry pipelines could lock in our water resources to a long term commitment when that water will be necessary for municipal, domestic, and agricultural uses. Coal slurry pipelines will also impact cities and agriculture in other ways.

Railroads need the coal revenues to maintain their operations and to satisfy their stockholders. I am certain that the railroads can explain their position quite well. However, if the railroads do not maintain their facilities and show a profit, they will not be able to internally subsidize less profitable but essential services to our agricultural sector and other segments of economy. I am not advocating a railroad monoply for coal transportation. What I am suggesting is that Congress look at the side affects of this proposed action on agriculture and the economies of the less densely populated areas of the United States which depend on the railroads. This nation needs a strong rail transportation system, and if one link in the system is weakened, the entire transportation system suffers. The problems that made the the ConRail legislation necessary, and the problems facing many eastern railroads and communities by loss of traffic, profits, and access to other parts of the economy will be further aggravated by this legislation.

Coal traffic presents the railroads with the unique opportunity to rebuild themselves without federal assistance and will, in the process, create new jobs. It also allows the railroads the opportunity to provide service to less profitable, but essential, segments of their systems. Coal slurry pipelines will deny the railroads this opportunity and this will result in higher transportation costs for all other goods.

The issue of eminent domain powers by private-for-profit corporations continues to be opposed throughout must of Wyoming. Many landowners in Wyoming are facing the likelihood of having their land and farming activities crossed and disrupted by pipelines, power lines, railroads, and other related transmission facilities.

With the possibility of federal eminent domain power, the incentive for large corporations to bargain in good faith is reduced, because the corporations will play one neighbor against another or resort to expensive legal maneuverings which landholders cannot afford. I am pleased to see that Congress has seen fit to require pipeline companies to use locally accessible courts for proceedings. However, coal pipeline companies should be required to comply with state procedures and laws when they use eminent domain to secure access across private land.

As I have stated on many occasions, Wyoming will carry its share in meeting this nation's energy needs. However, we do not desire to be exploited or to have a precious resource, water, jeopardized or taken from us. I would strongly urge the Committee not to report out Senate 1844 and to let it die in Committee.

I would appreciate this letter being read to the Committee, and that it be included as part of the official record on the hearings for Senate 1844.

Yours sincerely,

EH/wwt

cc: The Honorable Alan Simpson
The Honorable Malcolm Wallop
The Honorable Richard Cheney

THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

In reply refer to:

Attorney General
CHEYENNE, WYOMING 82002
PHONE 307 777-7841

STEVEN F. FREUDENTHAL
ATTORNEY GENERAL

June 3, 1982

Mr. Gary Ellsworth
Committee on Energy and Natural Resources
3102 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Ellsworth:

This letter is to submit my statement concerning the constitutional issues raised by the language of S. 1844, "Coal Distribution and Utilization Act of 1981," which protects state water law. Judicial and administrative decisions clearly illustrate that the language of the bill may be inadequate to fully protect state water rights. The State of Wyoming remains greatly concerned that these rights be protected before any coal slurry pipeline legislation is considered further.

I would appreciate admission of my statement into the record of the Committee hearing on S. 1844 on June 8, 1982.

Sincerely,

Steve F. Freudenthal

Steven F. Freudenthal
Attorney General

SFF:llc

Encl.

STATEMENT OF STEVEN F. FREUDENTHAL
ATTORNEY GENERAL FOR THE STATE OF WYOMING
Before the Senate Energy and Natural Resources Committee on
S. 1844: "Coal Distribution and Utilization Act of 1981"

June 8, 1982

I appreciate this opportunity to express my views on the provisions of S. 1844 which deal with the protection of state water rights. Protection of state control of water resources and administration of water rights remains an issue of paramount importance to the State of Wyoming and most western states. A careful examination of Section 6, shows that several problems and questions concerning water rights, which surfaced in prior attempts to pass legislation in aid of coal slurry pipeline development, remain unresolved. I believe the language of Section 6 may be inadequate to preclude all Constitutional challenges to state water regulation.

Water has traditionally been treated as a resource of the state, managed and appropriated for the benefit of its people. S. 1844 defines water as an interstate transportation medium, thereby subjecting it to powers exercised by Congress under the Commerce Clause. While Congress may permissibly delegate authority over interstate commerce to the states, the crucial question in this instance is whether Congress has in fact exercised or actually delegated its authority.

Case law has made it amply clear that provisions of Congressional acts which recognize state water law can be easily ignored by the courts. In First Iowa Hydroelectric Cooperative v. Federal Power Commission, 328 U.S. 152 (1946), and in Arizona v. California, 373 U.S. 546 (1963), clear statutory language which would have required the federal government to comply with applicable state water law was superseded by conflicting provisions of federal law. In California v. United States, 438 U.S. 645 (1978), the court allowed the states to impose conditions upon water appropriation for federal reclamation projects, but only so long as the conditions were not inconsistent with Congressional directives under the Reclamation Act.

S. 1844 may provide some protection for conditions initially placed upon the appropriation of water for a slurry pipeline. However, once state water rights are granted for a federally sanctioned pipeline, there is no guarantee that the state would be able to effectively administer those conditions without being subject to a commerce clause challenge.

Judicial treatment of federal-state conflicts under the Federal Power Act illustrates judicial reluctance to find actual Congressional consent to state regulation of interstate commerce. In New England Power Co. v. New Hampshire, 50 L.W. 4223 (1982), the court rejected New

Hampshire's argument that Section 201(b) of the Act, which "saves" state law regulating the exportation of hydroelectric energy enabled the state to place a ban on the exportation of power. The court took the view that Section 201(b) merely defined the extent of federal legislative preemptive effect on state law. The court found that there was no affirmative grant of power to the state to burden interstate commerce in a manner which would otherwise be impermissible, but rather, Congressional recognition of valid existing state law. In case after case, unless the particular language of a statute has clearly provided the states with powers to burden interstate commerce, the courts have found no Congressional authorization for the state regulation.

There is no clear indication that S. 1844 serves to validate activity by the state which would otherwise be burdensome. Section 6 allows for general state water law to govern the appropriation and use of water for coal slurry pipelines. However, there is no absolute assurance that this section may not be circumvented if the state regulation in question posed a "burden" on interstate commerce. This is particularly true in light of the importance the Act places on the development of slurry pipelines.

In the few unique cases where Congressional consent to state regulation of interstate commerce has been affirmed by the courts, statutory language served to remove the commerce challenge altogether by stating that the particular activity in question was an area left solely up to state regulation. For example, the McCarran Act, which subjected insurance to state regulation only plus the restraint of the federal anti-trust statutes, was viewed by the courts as a valid delegation of interstate commerce power to the states.

S. 1844 does not delegate to the states all authority over water. Instead, by expressly limiting the federal government's authority to impair the state decision making process, the bill suggests that a federal role exists which must be limited somehow to avoid its application. Federal authority may be determined to exist where not expressly limited by the language of the bill. Many judicial and administrative decisions have shown how the scope of federal preemption may be expanded in this manner without regard to what may have been the original intent of Congress.

S. 1844 goes a long way toward a requirement that all potential appropriators of water for slurry pipelines follow state law. However, there is no certainty that the language of the act will be interpreted by the courts to require compliance with state law which might otherwise be burdensome on interstate commerce. Once a right-of-way is acquired by a pipeline which is deemed to be in the national interest, the administration of state water law to protect other prior existing water rights to the detriment of the water supply of the pipeline may be precluded.

The concern of the State of Wyoming continues to be that the enactment of S. 1844 may further restrict the authority and jurisdiction of the state over water rights. Our state is committed to do its share to solve the nation's continuing energy problems. Still, commitment of our water supplies to extensive use in one area will make it increasingly difficult to meet the demands of new residents and industries accompanying energy development. For these reasons, it is crucial to the State of Wyoming that state water rights be protected completely. Protection of this vital resource cannot be speculative.

In conclusion, because the language of S. 1844 does not assure preclusion of a Constitutional challenge to state water regulation, the Act appears insufficient to protect the water rights and interests of the state.

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

June 8, 1982

TO : Honorable Malcolm Wallop
Attn: Ann Vance

FROM : American Law Division

SUBJECT : Power of Congress to Authorize State Burdens on Interstate Commerce

This responds to your question as to whether Congress has the power to validate state restrictions on interstate commerce that, in the absence of such congressional action, would be held unconstitutional as burdening interstate commerce. We understand that the question arises in the context of consideration of S. 1844 and H.R. 4230, bills which would grant the federal power of eminent domain to interstate coal slurry pipelines, but which would as amended leave solely to state law the determinations as to whether such companies are permitted to obtain the large amounts of water needed for pipeline operation. We assume for purposes of analysis that the bills would authorize states to deny water use permits to such companies solely on the basis of their interstate operations and that such discrimination against interstate operations could be held unconstitutional in the absence of congressional endorsement.

There seems little question that Congress can indeed authorize state regulation that otherwise would run afoul of principles found implicit in the grant to Congress of the power to regulate commerce (Art. I, §8, cl. 3 of the Constitution).

The assertion that Congress may not authorize states to restrict or discriminate against interstate commerce most likely stems from one or the other of two erroneous conceptions of the limits of the commerce power: that the power conferred is merely to remove impediments to the free flow of commerce and does not include the power to restrict that flow, or that the power must be exercised in such a way as to create a uniform national rule that does not vary from one state to the next. Both of these propositions were rejected by the Supreme Court in Prudential Insurance Co. v. Benjamin, 328 U.S. 408 (1976), in which the Court upheld a congressionally-sanctioned state tax that otherwise could have been held invalid under the commerce power. The tax upheld in Prudential was imposed by South Carolina on out-of-state insurance companies doing business in the State. The State imposed no similar tax on domestic companies, hence the tax on out-of-state concerns could have been viewed as discriminating against interstate commerce. The tax was upheld because Congress had expressed a clear policy in the McCarran Act, 15 U.S.C. §§1011-1015, deferring to state regulation and taxation of the business of insurance.

The insurance company argued, in effect, that Congress has no more power to restrict commerce than that possessed by the states in the absence of congressional regulation. This the Court rejected, stating that the sole limitation on this power -- that it relate to what constitutes or affects commerce -- should not be confused with the "implied prohibition" on state-imposed burdens on commerce. 328 U.S. at 423. That congressional exercise of the commerce power may prohibit commerce was made explicitly clear, and that such exercise need not create national uniformity implicitly clear, by the following passage from the Court's opinion in Prudential:

> The power of Congress over commerce exercised entirely without reference to coordinated action of the states is not restricted, except as the Constitution expressly provides, by any limitation which forbids it to discriminate against interstate commerce and in favor of local trade. Its plenary scope enables Congress not only to promote but also to prohibit interstate commerce, as it has done frequently and for a great variety of reasons. That power does not run down a one-way street or one of narrowly fixed dimensions. Congress may keep the way open, confine it broadly or closely, or close it entirely, subject only to the restrictions placed upon its authority by other constitutional provisions and the requirement that it shall not invade the domains of action reserved exclusively for the states.
>
> 328 U.S. at 434 (footnotes omitted)

Elsewhere in the opinion the Court characterized the McCarran Act as being "in effect, a determination by Congress that the business of insurance, though done in interstate commerce, is not of such a character as to require uniformity of treatment ...." 328 U.S. at 431, n. 39.

Also worthy of note in the Prudential opinion is the Court's emphasis on the combined power of Congress and the states in regulating commerce:

> This broad authority Congress may exercise alone, subject to those limitations, or in conjunction with coordinated action by the states, in which case limitations imposed for the preservation of their powers become inoperative and only those designed to forbid action altogether by any power or combination of powers in our governmental system remain effective. Here both Congress and South Carolina have acted, and in complete coordination, to sustain the tax. It is therefore reinforced by the exercise of all the power of government residing in our scheme. Clear and gross must be the evil which would nullify such an exertion, one which could arise only by exceeding beyond cavil some explicit and compelling limitation imposed by a constitutional provision or provisions designed and intended to outlaw the action taken entirely from our constitutional framework.
>
> 328 U.S. at 434-436 (footnotes omitted)

This language seems especially pertinent in the context of regulation of such areas as water resource allocation, where the states historically have exercised extensive powers and where many federal enactments have, to the extent consistent with the federal purpose, deferred to state law. (See, e.g., §8 of the Reclamation Act of 1902).

For an overview of the general area of congressional ratification of state laws regulating commerce we have enclosed a copy of L. Tribe, American Constitutional Law §6-31 (1978).

Please let us know if we may be of further assistance.

George Costello

George Costello
Legislative Attorney

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

February 25, 1982

TO : Honorable J. Bennett Johnston, Jr.
Attn: Daryl Owen

FROM : American Law Division

SUBJECT : Delegations of the Federal Power of Eminent Domain to Public and Private Corporations

In response to your request for the compilation described above, we have enclosed a report of the same name prepared by Robert Meltz of the American Law Division, CRS.

Robert Meltz

Robert Meltz
Legislative Attorney

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

DELEGATIONS OF THE FEDERAL POWER OF EMINENT DOMAIN TO PUBLIC AND PRIVATE CORPORATIONS

Robert Meltz
Legislative Attorney
American Law Division
February 25, 1982

DELEGATIONS OF THE FEDERAL POWER OF EMINENT DOMAIN TO PUBLIC AND PRIVATE CORPORATIONS

The ability of Congress to delegate its power of eminent domain is beyond dispute. Sackman, Nichols on Eminent Domain sec. 3.1[2] (rev. 3rd ed. 1974). In the large majority of cases, the delegatee of the power is an official within the executive branch, at whose request the U.S. Department of Justice files a petition in condemnation in Federal district court. In some instances, however, the delegatee is an entity outside the Federal Government — typically a publicly or privately chartered corporation.

This report compiles several instances where Congress has delegated the Federal eminent domain power to public and private corporations. The list is certainly far from exhaustive, however; there is no research technique assured of flagging every such instance in the U.S. Code.

Not included here are cases where the Federal Government avoids delegation of the condemnation power to a private party through the device of itself condemning the real property interest and immediately thereafter conveying or leasing the condemned interest to the private party. See, e.g., Public Utilities Regulatory Policies Act of 1978, sec. 602.

RAILROADS

Several delegations of the Federal condemnation power were made to the land grant railroads during the 1860's. The delegation to the Atlantic and Pacific Railroad Co. is representative in its statement of the purposes for which the granted power could be exercised:

> [the railroad] is . . . empowered to enter upon, purchase, take, and hold any lands or premises that may be necessary and proper for the construction and working of said road, not exceeding in width one hundred feet on each side of the line of its railroad, unless a greater width be required for the purpose of excavation or embankment; and also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road."

See citation below. Examples include:

> Act of July 2, 1864, 13 Stat. 369. To the Northern Pacific Railroad Company.
>
> Act of July 2, 1864, 13 Stat. 357. To the Union Pacific Railroad Co. and other railroads involved in a transcontinental line.
>
> Act of July 27, 1866, 14 Stat. 296. To the Atlantic and Pacific Railroad Co.

A more recent railroad delegation is:

> Public Law 91-518, 45 U.S.C. sec. 545(d)(1). To the National Railroad Passenger Corp.

PIPELINES

Research reveals only one Federal statute, presently in effect, granting the condemnation power to a pipeline company:

> Act of July 25, 1947 (amendment to Natural Gas Act), 15 U.S.C. sec. 717f(h). To natural gas pipeline companies holding certificates of public convenience and necessity under the Act.

During World War II, national defense needs gave rise to a temporary delegation of condemnation power:

> Act of July 30, 1941 (Cole Act), 15 U.S.C. note preceeding sec. 715. To pipeline companies, for building interstate petroleum pipelines determined by the President to be necessary for the national defense. Expired June 30, 1946.

OTHER ENERGY-RELATED DELEGATEES

Act of June 10, 1920 (Federal Power Act), 16 U.S.C. sec. 814. To power companies receiving licenses to construct hydroelectric facilities pursuant to the Act, to acquire land for dam, reservoir, and diversion structures, and related facilities.

Act of May 18, 1933 (Tennessee Valley Authority Act), 16 U.S.C. sec. 831x. To the Tennessee Valley Authority, to acquire lands and easements necessary to carry out the Act.

Public Law 96-294 (Energy Security Act), 42 U.S.C. sec. 8771(c). To the Synthetic Fuels Corp., when necessary for access to a Corporation construction site for site-related transportation, power transmission, and other services, and when necessary for a pipeline to transport synthetic fuel from a Corporation construction project to the nearest pipeline.

URBAN REDEVELOPMENT

Act of Aug. 2, 1946, 60 Stat. 790, D.C. Code secs. 5-701 through 5-719. To the District of Columbia Redevelopment Land Agency, for the assembling of real estate tracts in southwest Washington, D.C. for purposes of redevelopment.

Public Law 92-578 (Pennsylvania Avenue Development Corporation Act), 40 U.S.C. sec. 875(6). To the Pennsylvania Avenue Development Corp., for the acquisition of real property necessary or appropriate to carrying out its development plan.

Robert Meltz

Robert Meltz
Legislative Attorney
American Law Division
February 25, 1982

ACCT
Alliance for Coal and Competitive Transportation

May 28, 1982

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 8 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
Chairman
Committee on Energy and Natural Resources
United States Senate
3104 Dirksen Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

As a follow-up to your hearing earlier this month on coal pipeline legislation (S 1844), I am enclosing a response to a question asked of Mr. R. E. Samples, chairman of the National Coal Association, regarding the complications involved in obtaining state eminent domain rights along the path of an interstate coal slurry pipeline.

Also enclosed are several statements in support of S 1844 from members of the Alliance for Coal and Competitive Transportation (ACCT). These letters supplement those we submitted at the May 10 hearing, and I respectfully request that they be included with the other ACCT statements in the hearing record.

On behalf of the members of ACCT, I want to thank you for giving us the opportunity to testify on this important legislation. We appreciate the cooperation we received from you and your staff in accommodating our large panel and in allowing us the format we believed was necessary to tell our story. We look forward to the June 8 hearing on water issues and to working with you as this legislation progresses through your committee.

Sincerely,

Carl Bagge

Carl E. Bagge

Enclosures

cc: Gary Ellsworth
Meredith Spencer

[illegible], Chairman
[illegible]
Frederick Webber, Vice Chairman
[illegible]

American Association of Retired Persons
[illegible]
American Consulting Engineers Council
[illegible]
American Mining Congress
J. Allen Overton, Jr., President
American Public Power Association
Alex Radin, Executive Director
Building and Construction Trades Department, AFL-CIO
[illegible]
Consumer Federation of America
[illegible]
Eastern Coal Transportation Conference
[illegible]
Edison Electric Institute
[illegible]
International Brotherhood of Teamsters
Roy L. Williams, General President
International Union of Operating Engineers, AFL-CIO
J.C. Turner, General President
Laborers' International Union of North America, AFL-CIO, CLC
[illegible]
Mining and Reclamation Council
[illegible]
National Alliance of Senior Citizens
[illegible]
National Coal Association
[illegible]
National Rural Electric Cooperative Association
[illegible]
Vice President
National Society of Professional Engineers
[illegible]
Pipeline Contractors Association
[illegible]
United Association of Plumbers and Pipefitters, AFL-CIO
[illegible]
Slurry Transport Association
Western Coal Traffic League
Western Fuels Association
[illegible]

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NATIONAL
COAL
ASSOCIATION

COAL

CARL E. BAGGE
President
(202) 463-2647

June 1, 1982

The Honorable James A. McClure
Chairman
Committee on Energy and Natural
  Resources
3106 Dirksen Senate Office Building
Washington, D.C. 20510

SENATE COMMITTEE ON
RGY AND NATURAL RESOURCES
RECEIVED
JUN 2 1982
WASHINGTON, D.C. 20510

Dear Mr. Chairman:

On May 10th, at the Committee's hearing on S.1844, the Coal Distribution and Utilization Act of 1981, Mr. R. E. Samples, President of Consolidation Coal Company (Consol) and Chairman of the National Coal Association, testified in support of the legislation as a member of the panel representing the Alliance for Coal and Competitive Transportation (ACCT). During your questioning of the panel, you requested that Mr. Samples, with the assistance of the NCA staff, submit a statement to the Committee concerning the reasons that Federal, rather than state, eminent domain legislation is necessary for the development of interstate coal pipelines. Mr. Samples has requested that we prepare a response focusing on Consol's experience in attempting to develop an interstate coal pipeline.

After World War II, the use of coal declined as the use of liquid and gaseous fuels became more widespread. Thus, Consol began experimenting with new methods of supplying coal. By 1955, Consol had ground coal into fine particles, added water and created a slurry mixture which had properties similar to fuel oil. In 1956, Consol, realizing that the slurry mixture could be pumped through a pipeline, spent $13 million to construct a 108-mile long ten-inch-diameter coal pipeline from Cadiz, Ohio to the Eastlake generating station of the Cleveland Electric Illuminating Company. In 1959, Consol scientists and engineers discovered that a mixture of 60 percent coal and 40 percent water (as opposed to the 50/50 mixture in the Cadiz pipeline) could be burned directly in a boiler without undergoing a dewatering process.

This discovery was hailed as a great technological breakthrough. Consol and Texas Eastern Transmission Company began immediately to plan a 400-mile long pipeline, 20 to

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30 inches in diameter, that would carry a coal slurry mixture from West Virginia and Western Pennsylvania, across Maryland and Delaware to the heavy power-consuming areas around Philadelphia and New York. To demonstrate the value of this new product, Consol and Texas Eastern brought a supply of the coal slurry mixture to South Amboy, New Jersey where it was used to fuel a generating station of the Jersey Central Power & Light Company for four weeks. Representatives of 75 utilities observed the tests and were favorably impressed, as were officials of the Department of Defense. Economic analysis performed at the time indicated that the proposed pipeline could deliver a coal slurry mixture to utilities for at least $1.50 per ton less than railroad delivered coal.

Then the difficulties began. Railroads refused to allow the proposed pipeline to cross railroad property. Efforts to obtain state eminent domain statutes met strong railroad opposition and achieved only limited success. West Virginia adopted legislation that granted the power of eminent domain to such pipelines, but weakened the legislation by requiring the pipeline to engage in some intrastate activity, if there is "any reasonable demand therefore," and including a provision that would prevent the use of coal pipelines in a manner that would "result in any appreciable economic detriment to others." The meaning of neither of these provisions is clear. Efforts to obtain eminent domain legislation in Maryland and Delaware were completely unsuccessful.

Having failed to achieve adequate state eminent domain statutes for interstate coal pipelines, an effort was undertaken to achieve Federal eminent domain legislation. In 1962, President Kennedy sent legislation to the Congress that would grant Federal eminent domain authority to those interstate pipelines that the Secretary of the Interior determined to be in the national interest. When the Federal legislative effort failed, Consol and Texas Eastern shelved the interstate coal pipeline plan.

In the 20 years since, only one interstate coal pipeline has been built -- and that pipeline extends only one mile inside the Nevada line after crossing some of the most rugged and desolate terrain in Arizona. The consumers of electricity still await the cost savings that could have been achieved by use of coal pipelines; the coal industry still awaits the competitive boost it would have received from a more efficient transportation system; and the nation awaits the economic and security benefits of this proven and demonstrated technology.

The difficulties experienced by interstate pipelines at the state level are not hard to understand and were alluded to in detail by several of the witnesses at the May 10th hearing. Legislators in states through which these pipelines simply pass, neither delivering nor gathering coal, have difficulty considering the overriding national interest when determining whether state eminent domain should be granted to such pipelines. Even if every state along a pipeline route were to decide that eminent domain should be granted to the pipeline, the chances of obtaining consistent legislation in each state are remote. Meanwhile, one fact is certain: the railroads will fight each state eminent domain statute vociferously, tirelessly and, perhaps, in the same successful, albeit unfortunate, way as they fought the efforts in West Virginia, Delaware and Maryland and subsequent Federal legislative efforts since 1962.

For these reasons, Mr. Chairman, interstate coal pipelines will not be developed without Federal eminent domain legislation. We encourage you to schedule S.1844 for mark-up at the earliest possible date following the June 8th hearing. We are confident that S.1844 will be favorably reported and will be passed by the Senate.

Thank you for your interest in this legislation and the commitment of your Committee's time to this important issue.

With kindest personal regards,

Sincerely,

Carl Bagge

Carl E. Bagge

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†Ian MacGregor, Greenwich

*Immediate Past Chairman
†Honorary

Copy

May 3, 1982

The Honorable James A. McClure
Chairman
Senate Energy and Natural
Resources Committee
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Re: S. 1844 -- Coal Slurry Pipeline Legislation

The American Mining Congress is pleased that you have scheduled a May 10 hearing on S. 1844.

We support S. 1844 and see it as providing for the development of an important mode of transporting America's coal to domestic and foreign consumers.

Our country's vast coal reserves, when efficiently mined and moved to the marketplace, will reduce our dependence on dwindling and insecure petroleum supplies.

We believe coal is the cornerstone upon which we can begin to improve this nation's energy security.

AMC has also joined as a sponsor of ACCT, the coalition of consumer and labor organizations, utilities and industry to improve public awareness and understanding of the benefits of increased use of American coal here and abroad, as well as to show the need for coal slurry pipelines to provide effective competition to the railroads.

We urge you to support S. 1844 as an additional means of moving America's most abundant energy source to those points where it can best be used. We recommend that the bill be reported at the earliest possible date.

With warmest personal regards, I am

Sincerely,

Allen

J. Allen Overton, Jr.
President

AMERICAN PUBLIC POWER ASSOCIATION
2301 M STREET, NW WASHINGTON, DC 20037 • 202/775-8300

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Sebring, Florida
GEORGE D. REICH
Plattsburgh, New York
HAROLD SCHIEBOUT
Sioux Center, Iowa
SIMON C. SITTERSON
Kinston, North Carolina
J. K. SPRUCE
San Antonio, Texas
GEORGE H. USRY
Athens, Tennessee
H. B. VANDERLINDEN
Harlan, Iowa
WILLIAM C. WALBRIDGE
Sacramento Municipal Utility District
Sacramento, California
ROBERT C. YOUNG
Burlington, Vermont

June 15, 1982

RGY AND NATURAL RESOURC
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JUN 15 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
Chairman
Committee on Energy and
Natural Resources
3104 Dirksen Senate Office
Building
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing to request that the Senate Energy and Natural Resources Committee vote, as soon as possible, on the coal slurry bill, S. 1844, "The Coal Distribution and Utilization Act of 1981." It is important that this bill be given the opportunity to reach the floor of the Senate for a vote this session.

As you know, the American Public Power Association represents more than 1,750 local public power systems throughout the country. The coal slurry bill is supported by these public power systems because it will provide competition in coal transportation, thus helping to level out transportation costs which are such an important component of the expense of producing electricity from coal-fired generating stations.

In view of the favorable testimony last week before the Public Lands and Reserved Water Subcommittee from experts on water law that states' water rights could be protected through appropriate language in the bill, the time is ripe for the committee to vote on the bill so that it can move to the floor for full Senate consideration.

Sincerely,

Alex Radin

Alex Radin
Executive Director

AR/sm

ACEC File #700.01
#700.14

american
consulting engineers
council

UNITED STATES MEMBER

1015 FIFTEENTH STREET, N.W., WASHINGTON, D.C. 20005 ☐ (202) 347-7474
Telex: 897445 AMCONENGRC WSH

May 7, 1982

The Honorable James A. McClure, Chairman
Committee on Energy and Natural Resources
United States Senate
3102 Dirksen Senate Office Building
Washington, D.C. 20510

Attention: Meredith Spencer

Dear Senator McClure:

On behalf of the members of the American Consulting Engineers Council, we would like to extend our appreciation to you for holding a hearing on S. 1844, the Coal Distribution and Utilization Act of 1981.

Enclosed is a copy of our statement in support of the legislation. We respectfully request that this statement be included in the hearing record.

As a member of the Alliance for Coal and Competitive Transportation (ACCT), we again thank you for holding these hearings and urge the Committee to favorably consider this important legislation.

Sincerely,

William J. Birkhofer
Director
Governmental Affairs

WJB:sr
Enclosure

President WILLIAM R. RATLIFF Mt. Pleasant, Texas • *Senior Vice President* DOUGLAS C. WOLFANGLE Bloomington, Minnesota
Vice Presidents H. S. (SONNY) HANSON Billings, Montana • MICHAEL A. HERTZBERG, Waitsfield, Vermont
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Executive Vice President LARRY N. SPILLER • *Managing Director* BRUCE E. VOGELSINGER

STATEMENT OF
THE AMERICAN CONSULTING ENGINEERS COUNCIL

Mr. Chairman and Members of the Committee, the American Consulting Engineers Council would like to thank you for the opportunity to submit this statement in support of S. 1844, the Coal Distribution and Utilization Act of 1981.

The American Consulting Engineers Council (ACEC) is a nationwide federation of over 3,800 independent engineering firms in private practice, representing over 100,000 professional, technical and support persons. These firms range in size from one-man operations to multi-branch corporations. While many ACEC members work only for the private sector, others provide engineering services for federal agencies and federally-assisted grantees.

ACEC would like to commend the Committee for holding this hearing on S. 1844. This legislation will grant the power of federal eminent domain to coal slurry pipelines. ACEC believes this is a necessary step because obtaining eminent domain authority on a state-by-state basis poses impenetrable legal and practical hurdles. After a 20-year effort by coal slurry pipeline supporters, only ten states have eminent domain authority laws. Another important provision of the legislation ensures the preservation of state water laws. The states have the exclusive right to allocate water for pipeline use.

The ACEC Board of Directors has adopted a transportation policy statement that supports competition among the various modes of the nation's transportation system. We extend this support to competition in the coal transportation system. Currently, 85 percent of all coal transported by rail is "captive"; that is, there are no feasible alternative modes of transportation available. This lack of competition and virtual monopoly enjoyed by the railroads grants the power to charge excessive rates for hauling coal. We believe this lack of competition results in higher transportation costs and can discourage the use of coal as an energy source.

Coal is a natural choice to help us eliminate our dependence on foreign oil. We should not forget the energy crisis experienced as a result of the Arab oil embargo and Iranian revolution. America is described as the "Saudi Arabia of coal". There are 475 billion tons of known coal reserves, sufficient to meet coal energy needs for about three centuries. Coal slurry pipelines can make more of these coal reserves available.

Construction of coal slurry pipelines will provide jobs and an economic boost to the country. We can be better able to meet the increasing demands for coal at home and abroad by making more and cheaper coal available. Over half the electricity supplied in this country today is generated from coal, making electric utilities the largest domestic users of coal. The advantages of cheaper coal transportation costs can be passed along to consumers in the form of our monthly electric bills. Additionally, more available coal for export will help the nation's balance of trade.

We urge the Committee's support for this important legislation. Early enactment will see benefits accrue to not only the country's energy situation, but our economic situation as well.

BURLINGTON NORTHERN INC.

RGY AND NATURAL RES
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D.C. 20510

RICHARD M. BRESSLER
Chairman & Chief Executive Officer

May 5, 1982

The Honorable James A. McClure
3121 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator McClure:

Next week the Senate Energy and Natural Resources Committee will hear testimony regarding S. 1844, a bill providing coal slurry pipelines with the power of federal eminent domain.

We firmly oppose enactment of this legislation.

We do not oppose competition from the coal slurry industry, but believe that we should play from the same rule book. By granting federal eminent domain authority and not imposing common carrier obligation requirements, coal slurry pipelines would receive special privileges not enjoyed by railroads or other common carriers. While this legislation purports to address the common carrier issue, I would like to point out that a true common carrier, which railroads are, must upon reasonable request and without discrimination respond to any shipper request. Such requirements were also imposed on the Trans-Alaska Oil Pipeline. That law stated that the pipelines must "accept, convey, transport or purchase without discrimination all oil or gas delivered to the pipelines". In addition, railroads must reasonably apportion or allocate capacity to all comers when demand exceeds capacity.

S. 1844 only pays lip service to the common carrier issue and contains none of the requirements imposed upon other carriers. To provide slurry pipelines with federal eminent domain authority as well as not imposing true common carrier requirements, will allow them to skim the cream of existing and future coal traffic, at a time when railroads already have substantial excess coal hauling capacity.

I would also like to call your attention to another serious problem posed by this legislation. If coal pipelines are granted federal eminent domain authority state water rights may be adversely affected. Many of the agricultural intensive states served by our railroad are deeply concerned about the impact of such eminent domain authority on their right to protect scarce water resources.

We do not believe that enactment of legislation providing special privileges to only certain components of an industry with whom we must compete head to head constitutes wise public policy.

Sincerely,

Dick

Burlington Northern Inc./1111 Third Avenue/Seattle, Washington 98101/206-625-6800

bc: B. J. Harris
✓Tom Hagan - CSWS Austin

Central and South West Corporation
2700 One Main Place • Dallas, Texas 75250 • 214-748-3700

DURWOOD CHALKER
Chairman and Chief Executive Officer

March 17, 1982

The Honorable John Tower
United States Senate
Russell Senate Office Building
Room 142
Washington, D.C. 20510

Dear Senator Tower:

The Central and South West Corporation is an investor owned electric utility system serving a population base of approximately four million people living in the states of Texas, Oklahoma, Louisiana and Arkansas. Our four principal operating companies are Central Power and Light headquartered in Corpus Christi, West Texas Utilities headquartered in Abilene, Southwestern Electric Power headquartered in Shreveport, and Public Service Company of Oklahoma headquartered in Tulsa.

The purpose of this letter is to tell you why we at Central and South West feel that S. 1844, the coal slurry pipeline enabling legislation, is worthy of your support.

As you are already aware, the supplies of cheap natural gas, which have been the primary boiler fuel for most of us in the southwest, are rapidly diminishing. To further complicate the future of new electric power generating facilities, the nuclear option that many of us viewed as so desirable in the 1960s and early 1970s has clearly lost a great deal of its attractiveness. With the continued deemphasis on fuel oil as a boiler fuel, those of us in the electric generating business in the southwest are turning increasingly to coal and lignite as the primary boiler fuels of the future.

A brief overview of our fuel mix since 1977 as it is anticipated through the year 2000 will highlight the importance of coal-generated electric power to our system and its customers. In 1977, 99 percent of our system's electric generation was gas-fired. Today, we are 70 percent gas-fired and 30 percent coal-fired. As we move into the future, our electric generation fuel mix will change dramatically. By 1990, the fuel mix will be 50 percent natural gas, 35 percent coal, eight percent lignite and seven percent nuclear (South Texas Project - I). By the year 2000, our fuel mix will be 43 percent coal, 25 percent natural gas, 16 percent lignite and 16 percent nuclear (STP - II).

Central Power and Light Company • Public Service Company of Oklahoma • Southwestern Electric Power Company • West Texas Utilities Company
Central and South West Services, Inc. • Central and South West Fuels, Inc.

ELECTRICITY FOR THE SOUTHWEST

The Honorable John Tower
Page 2
March 17, 1982

As we become more heavily dependent on coal as our primary boiler fuel, prudent planning necessitates that we focus not only on adequate supplies at the lowest feasible cost, but on the transportation costs and the available alternatives. Rail transportation costs for western coal delivered to the boiler are currently running in excess of 50 percent of the delivered cost of the coal, and that figure does not include our capital investment in the rolling stock purchased to carry the coal! Throughout our system, we have experienced rail transportation increases as high as 35 percent over the past two- and one-half years.

Our reason for supporting coal slurry pipeline enabling legislation is very basic: the potential for breaking up the monopoly presently enjoyed by the railroads on the transportation of western coal to the southwest will benefit our system--its stockholders and customers, many of whom are your constituents. To attempt to predict how much money we would save if coal slurry were a transportation option would be misleading, but we can state confidently that the competition embodied in the coal slurry concept would be a healthy force on the economics of the electric utility business in your state.

Our reason for contacting you now on this issue is that after several years of legislative maneuvering it appears as though the momentum for the coal slurry pipeline concept is building in both the House and the Senate, with the chances improving daily for the measure's serious consideration in this session of Congress.

For these reasons, Senator, we in the Central and South West System feel that the coal slurry legislation merits your careful consideration. We hope that if you agree that the measure is worthy of your support, you will lend your name as a cosponsor to S. 1844.

As always, we appreciate your concern for and attention to the problems faced by those of us in the electric utility business.

Sincerely yours,

Durwood Chalker

DC:jc

cc: M. L. Borchelt M. E. Fate, Jr.
G. D. Churchill J. L. Stall
bc: Will Ball, Adm. Ass't. to Senator Tower
[illegible], Legislative Ass't. to Senator Tower

CP&L
Carolina Power & Light Company
P. O. Box 1551 • Raleigh, N. C. 27602
(919) 836-6282

May 4, 1982

SHERWOOD H. SMITH, JR.
Chairman/President

The Honorable James A. McClure, Chairman
United States Senate Energy & Natural Resources Committee
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Re: S. 1844, Coal Slurry Pipeline Legislation

Dear Senator McClure:

The coal slurry pipeline concept is an option that should be allowed to be fully explored. As a private sector venture, coal slurry pipeline promoters seek only the same basic rights in federal eminent domain previously granted the railroads. S. 1844 provides a mechanism to determine whether a specific pipeline proposal would be in the national interest before granting this right.

As a result of the railroad deregulation legislation passed by the 96th Congress in 1980, coal transportation charges are rapidly escalating, while captive customers such as ourselves are unable to effectively pursue other transportation options. Our transportation costs for coal, virtually all of which is by rail, could be as much as $121 million on the 10 million tons we anticipate purchasing in 1982, an increase of over 20% from 1981. It is estimated that 59% of our $925 million operating and maintenance 1982 budget will be for fuel costs.

We urge the members of the Senate Energy & Natural Resources Committee to support S. 1844. By removing the impediments to private development of coal slurry pipelines, the marketplace can determine whether such pipelines are indeed an effective and economically justifiable option.

Sincerely,

Sherwood H Smith Jr

Sherwood H. Smith, Jr.

SHSJr/sg

CAJUN ELECTRIC POWER COOPERATIVE, INC.
10719 AIRLINE HIGHWAY • P. O. BOX 15540 • BATON ROUGE, LOUISIANA 70895
(504) 291-3060

April 19, 1982

Honorable Russell B. Long
United States Senate
Room 217
Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Long:

Rising railroad haulage rates for coal transportation are a substantial problem for Louisiana utilities and our consumers. One important solution to this problem is the development of alternative transportation modes to compete with the railroads. Interstate coal pipelines, such as the ETSI Pipeline that will transport coal to Louisiana, Arkansas and Oklahoma from the Powder River Basin of Wyoming, offer a cheaper, more efficient and more reliable method of transporting coal over long distances. However, such pipelines often cannot be developed without Federal eminent domain authority.

Senator Johnston has introduced legislation that will grant Federal eminent domain authority to interstate coal pipelines and assure regulatory certainty for the pipeline coal haulage contracts. To date, eleven Senators have cosponsored S. 1844, which has been referred to the Senate Energy and Natural Resources Committee, where hearings have been scheduled for May 10. Similar legislation (H.R. 4230) has been reported by the House Interior and Insular Affairs Committee and is scheduled to be marked-up by the House Public Works Committee shortly. Congressmen Breaux, Huckaby, Tauzin and Livingston are active cosponsors of H.R. 4230.

Your past work to moderate railroad coal haulage rates has been greatly appreciated. We would now appreciate your cosponsorship of S. 1844. Your active support of S. 1844 would be important to the ultimate success of this legislative effort. I understand you have received a letter from Lamar Stall with Southwest Electric Power Company.

Thank you very much for all of your past efforts on behalf of Louisiana's electric consumers.

Sincerely,

James R. Smith
Cajun Electric Power Cooperative

Middle South Utilities

Gulf States Utilities

Association of Louisiana Electric Cooperatives

AH/pc

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THOMAS R. KING
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H. MIFFLIN WILLIAMS III

PHONE 322-2516
AREA CODE 801

OF COUNSEL
FRANK J. ALLEN
ROLAND R. WRIGHT

June 11, 1982

Honorable Malcolm Wallop
Committee on Energy and Natural Resources
United States Senate
Washington, D. C. 20510

Re: Proposed Amendments to S.1844

Dear Senator Wallop:

This letter discusses the modifications I would suggest to those portions of the printed amendments you are proposing to S.1844 in the areas of conditioning federal eminent domain upon (a) acquisition of state water rights and (b) limitations on use of federal reserved water rights. Before I go into this discussion, let me say that I appreciated the courtesy of being able to testify on the subject. Your understanding of the issues was impressive.

I can see no need to pursue extensive revisions. The language in the bill will accomplish the goal of protecting state water administration and prior water rights. I have seen Frank Trelease's suggested changes and concur with the few changes he is suggesting to subsections (a), (b) and (c) of Section 6. I am enclosing a copy of those, even though you may have received a separate copy from Dean Trelease.

My remaining concerns are (a) with the language ultimately used in conditioning the use of eminent domain powers on the holding of a state water permit; and (b) with the proposal which would prohibit the use of any federal reserved water rights for slurry lines. I offer the following thoughts on these two matters:

State Water Rights as a Precondition

On page 4, line 4 of Section 4(a), the term "appropriate state permits and authorizations" is used. The use of the word "and" suggests that both a permit and something else (not defined) are needed. I would suggest changing the word "and" to "or". This language also may imply the need for a perfected water right as a precondition to use of eminent domain powers under the bill.

If the language were so construed, it could create a "Catch 22" situation, because in most states a water right can only be fully perfected by the completion of the construction of works and the application of the water to the intended beneficial use. Thus, the power of eminent domain may be needed to perfect the right.

As a general rule, those seeking to use the right of eminent domain need it so that they can proceed with the needed construction of works. The subsequent actual use of water completes the perfection of the water right. The overwhelming majority of western states statutorily follows this approach. Clark, Waters and Water Rights, Vol. 6 pp. 518, footnote 33 (1972). It would be inadvisable to pursue a different approach in S.1844. In your own state of Wyoming it is both statutory and constitutional. Wyo. Const. Art. I, Sec. 32, U.S. Sec. 1-26-401 (1977).

I understand that the concern here is with the contention that a grant of eminent domain powers to a coal slurry pipeline could somehow be used as leverage to gain a state water right. In my estimation, such a strategy by a coal pipeline would be counter-productive. State water officials would simply not yield to such tactics. On the other hand, I agree that before someone should be permitted to exercise the powers of eminent domain he should have initiated a water right for his coal slurry line. If the water right which is going to be used for the slurry line is going to be obtained under a new state application to appropriate, the only thing that the sponsor of the project could do, as a practical matter, is to file his application and push for its approval. The state water administrative agency could approve the application and grant the permit without the construction of any works, but the water right could not be perfected until the facilities have been constructed and the water has been put to beneficial use. If the necessary rights of way cannot be acquired, the right to condemn would have to be invoked at this point.

Once the right of way has been obtained, construction can proceed, the water can be put to beneficial use and then the water right can be certificated or adjudicated and becomes a fully perfected right. See Robinson v. Schoenfelt, 62 Ut. 233, 238 P. 1041 (1923). In that case, the court expressly said that the mere filing of an application is not an appropriation. It does, if approved, give the applicant the right to proceed to complete the appropriation and if it is completed, said the court, the priority date will relate back to the date of filing. The mere filing of the application gives the applicant standing in court to defend his water right--for the application creates an "inchoate right" which he can defend.

In 1930 the Utah Supreme Court said in Little Cottonwood Water Co. v. Kimball, 76 Ut. 243, 289 P. 116, that the approval of an application is only a preliminary step. It merely clothes the applicant with authority to proceed and perfect, if he can, his proposed appropriation. To do this he must complete his works and apply the water to the intended beneficial use. To the same effect see Duchesne County v. Humphries, 106 Ut. 332, 148 P.2d 338 (1944).

Tanner v. Provo Bench Canal, 40 Ut. 105, 121 P. 584 (1911), was a suit brought to condemn the right to enlarge an existing canal to accommodate the plaintiff's water. A Utah statute permitted the use of eminent domain for this purpose. The canal company tried to stop the condemnation, because the only thing the plaintiff had was an approved application, which, as noted above, is significantly less than a perfected water right. The court held that it was not necessary that the plaintiff show that he had actually appropriated the water in order for him to maintain the condemnation action. It is sufficient, said the court, that he has applied for the water and the application has been approved.

We also need to perhaps keep in mind in chosing the language that Colorado, for example, does not have a normal permit system. Water rights are initiated there through the obtaining of a conditional decree directly from the court. Also, the water right which the coal slurry line may intend to use may already be one that is fully perfected under an existing state permit or court decree for irrigation or some other use. In most states a change application would be required so that the water could be changed from irrigation to coal slurry (industrial) use. Also the proposed water may be available only under a contract, with the water right itself (the application, the permit, the diligence claim or the decree) held by another. This would be true, for example, as to water secured from most Bureau of Reclamation projects. The Bureau would have obtained its water right under a permit from the state and then the user would get his water under a contract, so that he would hold a contract, rather than a permit. We then have situations where the project may have been built without a state permit. Generally this will be true of projects constructed by the Corps of Engineers and it is true in isolated cases, like Glen Canyon Dam, for example, in projects built by the Bureau. The practice of the Corps is to require persons seeking to use the water to secure a permit from the state and then a contract to use Corps facilities. On the Kaiparowits Project here in Utah the sponsors wanted water from Lake Powell, and since the Bureau had no state permit, it required the applicant to get a state permit as a condition to getting a Bureau contract.

With the foregoing in mind, I would suggest that the Section 4(a) language be as follows:

> SEC. 4. (a) AUTHORITY TO MAKE NATIONAL INTEREST FINDINGS. Upon application of any person proposing to construct an interstate coal pipeline distribution system, who has filed and secured approval of a water permit or acquired other appropriate authorization for reservation, appropriation, use or diversion of water under applicable state law as provided for in section 6 of this Act, the Secretary of Energy or his successor shall determine whether the construction of such system shall be in the national interest.

Federal Reserved Water Rights

The proposed addition of subsection (d) to Section 6 addresses the use of federal reserved water rights for coal slurry pipelines. This raises one complex issue. The proposed language does not distinguish between Indian and non-Indian reserved water rights. I can foresee no situation where non-Indian reserved rights, i.e., those rights for National Forests, military reservations, etc., could supply the amount of water required by a major interstate coal pipeline. Furthermore, after the holding of the U. S. Supreme Court in United States v. New Mexico, 438 U.S. 696, 57 L.Ed. 1052, 98 S.Ct. 3012 (1978), I doubt that a coal slurry pipeline would come within the purposes for which such lands were reserved.

The large block of existing reserved water is that reserved for various Indian tribes. Presently, there are approximately forty five suits in various state and federal courts throughout the western United States for the adjudication and quantification of these Winters doctrine reserved rights. In your capacity as Chairman of the Subcommitee on Public Lands and Reserved Water Rights, I know you have become familiar with the proposals for congressional action in this area. I do not see S.1844 as the right legislation for resolving the question of whether Indian water should be used off the reservation. Also, if a slurry pipeline were moving coal produced from an Indian lease, I see nothing wrong with moving it with Indian water. This is roughly the situation with the Black Mesa coal pipeline which supplies the Mojave Power Plant in southern Nevada with coal from the Black Mesa Mine on the Navajo Reservation in Arizona.

Water for Black Mesa Pipeline comes from wells on the Indian reservation, although I understand that state permits have been issued for those wells. Even with state permits, the Navajo Tribe might, within its Winters rights claim this underground water as a reserved right.

I would suggest that you shift the focus of subsection 6(d) away from reserved water rights and toward federal water projects. This could be done by requiring that state water laws be followed to obtain water from federal projects. As I mentioned in my testimony, this is already the situation for federal reclamation projects, which under Section 8 of the Reclamation Act of 1902, must get project water under a state permit. See California v. United States, 438 U.S. 645 (1978). No parallel requirements exist for those projects constructed and administered by the Corps of Engineers. However, the Corps does not normally grant contracts for use of project water without requiring the applicant first to get a state permit. For example, the Corps' manual on "Water Resources--Policy and Authorities", dated May 27, 1981, states:

> Downstream waters made available by a project are subject to allocation under state laws. The parties desiring to use the water impounded by a reservoir must acquire the necessary water rights under the provision of state laws, and regulations, and resolve conflicts among users at the local or state level. The Corps provides flow regulation service or storage space within the reservoir to water users as authorized and is not involved in adequacy or timing of the acquisition of water rights.

In the few cases where the Bureau has built projects without a state filing, and as to Corps projects, the language of Section 6 of the proposed legislation should insure compliance with state law if that water is to be used. Thus, since I do not believe that there is any federal reserved water which could be made available, other than the Indian reserved water, and since I do not think the Indian reserved water ought to be dealt with in this context (it is simply too complex and too important a problem for the Indians), I do not believe that we need this suggested amendment. I think the Section 6 language as amended by Dean Frank Trelease is adequate.

Conclusion

In conclusion I would urge you to modify your proposed amendments to S.1844 in the following manner:

Sec. 4(a). Page 4, line 4--either delete the amendment or require that the water right showing required be only that the entity seeking to use eminent domain holds either a right to use water under a perfected water right under state law, or has initiated such a right by filing and securing approval of an appropriate application with the state where the water will be diverted. In this regard I have suggested specific language above on page 4.

On Sec. 6(d), Page 7, line 15, I would place a period after the phrase "Nothing in this Act shall create a Federal Reserve water right" and delete the balance of the proposed amendment.

If something more definitive is desired to drive home the point that no federal right is to be created, etc., I would recommend that you follow the language of Section 8 of the Reclamation Act of 1902 from which I have made some deletions which were necessary there, but not appropriate here. So that you can see what the deletions are, I have typed and then drawn a line through them.

> ~~Sec. 8. (Irrigation laws of States and Territories not affected; interstate streams; Water rights.) That~~ nothing in this act shall be construed as affecting or intended to affect or in any way interfere with the laws of any State or Territory relating to the control, appropriation, use or distribution of water used [in irrigation], under state permit or state water law ~~or any vested right acquired thereunder and the Secretary of the Interior, in carrying out the provisions of this act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof: Provided, That the right to use of water acquired under the provisions of this act shall be appurtenant to the land irrigated and beneficial use shall be the basis, the measure, and the limit of the right.~~

Frank Trelease's suggested changes to Sec. 6 are enclosed.

Very truly yours,

Edward W. Clyde

Edward W. Clyde

EWC:ML

Encl.

Frank J. Trelease: Final Suggestions For Amended Section 6 of S. 1844

SEC. 6(a) The United States or its agents, permitees, licensees, or transferees or any interstate coal pipeline ~~distribution system-found-to-be-in-the-national-interest under-section-4-of-the-Act~~ shall not reserve, appropriate, purchase, transfer, use, divert, dedicate, or claim water within any State for an interstate coal pipeline distribution system ~~found-to-be-in-the-national-interest under-section-4-of-this-Act~~, unless such reservation, appropriation, purchase, transfer, use, diversion, dedication or claim takes place pursuant to and in compliance with ~~state~~ the substantive and procedural law of that State relating to the control, appropriation, use or distribution of water and the protection and enforcement of water rights.

(b) Pursuant to the commerce clause in article I, section 8, of the United States Constitution, the Congress declares that the establishment and exercise of terms or conditions, including terms or conditions ~~terminating-use~~ for protecting rights of other appropriators and enforcing the laws of priority, on permits or authorizations for

the reservation, appropriation, use, or diversion of water for an interstate coal pipeline distribution system ~~found-to-be in-the-national-interest-under-section-4 of-this-Act~~ shall be determined pursuant to State law notwithstanding any transportation, use, or disposal of such water in interstate commerce.

(c) Nothing in this Act shall ~~alter~~ affect in any way the validity of or pre-empt any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use, or diversion of water.

Diamond Shamrock

J. L. Jackson
Executive Vice President

MAY 17 1982

May 14, 1982

The Honorable James A. McClure
Chairman
Committee on Energy and Natural Resources
U.S. Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On behalf of Diamond Shamrock Corporation, I strongly urge your active support for legislation to grant the right of federal eminent domain for coal slurry pipelines.

Diamond Shamrock is both a producer and consumer of substantial quantities of coal and other forms of energy. As such, we are acutely aware of the need for more competition by creating an alternative method of long-distance coal transport. A competitive coal transport market would ensure an adequate coal transportation network and delivery of coal to the consumer at the lowest possible cost.

Enactment of federal eminent domain legislation for coal slurry pipelines, such as S. 1844, is absolutely essential to enable these pipelines to become a competitive means for shipping coal. We believe that this legislation and the healthy competition it will foster are very much in the national interest.

Your assistance in securing passage of coal slurry pipeline legislation during this session of Congress would be greatly appreciated.

Sincerely yours,

J. L. Jackson

JLJ:ll

Diamond Shamrock Corporation 1200 First Security Plaza, Lexington, Kentucky 40507 Phone: 606 253-3322

ECTC EASTERN COAL TRANSPORTATION CONFERENCE
1224 Seventeenth Street, N.W.
Washington, D.C. 20036

(202) 775-0922

Officers

William R. "Dewey" Miller
Cannelton Industries, Inc.
President

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Amherst Coal Company
Vice Chairman
Treasurer

C. Michael Loftus
Slover & Loftus
Executive Director
General Counsel

Board of Directors

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James M. Baylor
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Cannelton Industries, Inc.

James R. Thomas
Carbon Fuel Sales Company

Jerome Drummond
Drummond Coal Company

R. Page Henley, Jr.
Armco, Inc.

Harry LaViers, Jr.
South-East Coal Company, Inc.

Rex L. Roush
Blue Diamond Coal Company

George C. Bush
Jones & Laughlin Steel Corporation

John C. Culp
Berwind Corporation

Lawson W. Hamilton, Jr.
Pratt Mining Company

Raymond E. Gotshall
Old Ben Coal Company

May 7, 1982

Senator James A. McClure
Chairman, Senate Committee on Energy
and Natural Resources
3104 Dirksen Building
Washington, D.C. 20510

Dear Senator McClure:

On behalf of the Eastern Coal Transportation Conference, I am writing to express ECTC's support for the passage of S. 1844, the Coal Distribution and Utilization Act of 1981, which is currently pending before your Committee. We believe this bill well serves the interests of competition and American energy independence, and therefore urge you as Chairman to bring this legislation before the full Senate at the earliest possible date.

The Eastern Coal Transportation Conference is a voluntary organization of coal producers and owners of coal-producing properties located east of the Mississippi River. Among its twenty-two members are companies operating numerous mines located in Kentucky and West Virginia. ECTC was formed to unite Eastern coal sources in support of actions to assure the economic and competitive transportation of coal to American electric consumers, industries, and export markets. ECTC believes that competition is the single most effective mechanism through which the costs of transporting the nation's most abundant electric fuel source can be kept to reasonable levels.

Through enactment of the Staggers Rail Act of 1980, Congress attempted to allow natural competitive market forces to take the place of government regulation for purposes of providing protection to rail shippers from unreasonably high transportation rates. Unfortunately, throughout

Successor to the Property Owners Committee — Formed 1926

the East railroads continue to hold a virtual monopoly over high volume coal traffic. This unnatural condition inhibits both maximum utilization of coal as a substitute for oil and natural gas, and the nation's efforts to effectively compete in the international coal supply market through increased exports. The presence of coal slurry pipelines in the East would provide a badly needed alternative to rail transportation, and the competition brought about by the construction and operation of pipelines would operate to hold coal transportation rates to reasonable levels and encourage increased efficiency on the part of the railroad industry.

Pipelines have already proven themselves as an economic and environmentally sound method of coal transportation. For example, the competitive pressure on railroad rates which was generated by the operation of the Cadiz pipeline in Ohio in the 1950's directly resulted in the development of unit train service, which both increased efficiency and brought down the cost of coal transportation by rail.

Presently, the rebirth of coal slurry pipelines is threatened by the unwillingness of many railroads to negotiate right-of-way grants over their properties, and the slow progress on the part of many state legislatures in granting state eminent domain for pipeline construction. As you know, most of the Eastern railroads own their rights-of-way in fee simple absolute, with so-called "earth to sky" property rights, and can therefore effectively block new pipeline construction at will. S. 1844 would solve this problem by granting federal eminent domain for the purpose of building coal slurry pipelines. At the same time, the bill would protect the rights of individual states by requiring pipeline companies to go to the states to obtain permits for the use of each state's water resources. Further, the pre-construction preparation of an Environmental Impact Statement will ensure that competitive coal transportation is not obtained at the expense of important ecological interests. It is because the bill properly balances the need for federal action with the fundamental right of the states to protect their individual natural resources that ECTC has joined the ranks of the many industry, consumer, and labor interests who support S. 1844.

The development of American coal resources is the keystone of the nation's drive for energy independence. The full potential of coal, both as a reliable source of energy here at home and a marketable product for overseas export, cannot be realized unless and until the market for transportation of this commodity is open to the forces of true competition. The Coal Distribution and Utilization Act of 1981 represents a great step forward in this regard. We therefore strongly urge that you lend your support to this legislation, and schedule your Committee's post-hearing mark-up and reporting of the bill for the earliest possible date.

Sincerely,

W. R. Miller

W. R. Miller, Chairman
Eastern Coal Transportation Conference

cc: Members, Senate Energy Committee

Statement of Ebasco Services, Incorporated
Before the Senate Energy and Natural Resources Committee
on May 10, 1982

Ebasco Services, Incorporated welcomes the opportunity to submit the enclosed study for the record. Ebasco, a wholly owned subsidiary of ENSERCH Corporation, provides engineering, construction, and consulting services primarily to electric utilities. With 75 years of experience, Ebasco has a broad, comprehensive background in all phases of the power generation industry.

In light of the increasing impact of transportation costs on the delivered cost of energy to power consumers, Ebasco conducted a study of four alternative modes of energy transportation in an effort to determine the most economical form. Coal/water slurry was found to be more cost-effective than coal transportation by railroad or rail/barge and electrical energy transmission by power lines.

The study, written by chief consulting engineer Joseph Greco and principal engineer Harrison B. Sherlock, reviews alternative transportation costs for moving blocks of energy in units of 1600, 3200, 6400 and 9000 MW increments over linear distances of 500, 900 and 1500 miles. Costs are based on a single terminal point for each transportation system. The 6400 MW and 9000 MW generating facilities could be comprised of several large stations in the energy center transmitting to a large industrial city. The transportation systems would split into several branches near its terminus.

The authors conclude:

1. Coal/water slurry pipeline transportation systems offer the lowest cost delivery of the modes of transportation analyzed. However, the pipelines are presently stalled by problems with right-of-way acquisition due to the absence of eminent domain legislation.

2. If coal pipelines are to be viable, the right of eminent domain must be available to the user.

3. Coal/water slurry pipelines and transmission lines are more inflation-proof than rail or rail-barge modes of transportation because of low overall operating and maintenance costs.

4. Consideration should be given to advanced pipeline concepts, including coal/oil slurry transport and metha/coal slurry transport. These concepts may have economic and environmental advantages over conventional coal-water slurry pipelines.

The text of the study follows.

Energy Transportation—What Are the Alternatives?

PHOTO BY RICK [illegible]

by JOSEPH GRECO
Chief Consulting Engineer

and HARRISON B. SHERLOCK
Principal Engineer
Consulting Engineering Department

Transportation costs are becoming of increasingly greater significance in the delivered cost of energy to the power consumer. Ebasco has reviewed the costs for transmitting electrical energy by power lines, and compared them to transporting coal by railroad, coal-water slurry pipeline and combined rail and barge transport. We have also looked at some interesting advanced concepts which are on the horizon. These include methacoal (a thixotropic coal-methanol slurry) pipelines, and coal-oil slurry pipelines; in addition to the more conventional coal-water slurry pipelines.

This study explores moving large blocks of energy over long distances in response to energy transportation scenarios envisioned on new projects. It covers the transportation of comparative blocks of energy in units of 1600, 3200, 6400, and 9000 MW increments over linear distances of 500, 900 and 1,500 miles.

Costs are based on having a single terminal point for each transportation system. However, the 6400 MW and 9000 MW generating facilities could be comprised of several large stations in an energy center transmitting to a large industrial city. The transportation system would split into several branches near its terminus.

Approximate annual coal delivery requirements are based on a heating value of 11,000 Btu/lb, a net heat rate of 10,000 Btu/kWh and a 65 percent generating load factor (average load over peak load).

The distances selected represent probable haulage routes. For example, from western Kentucky, southern Indiana or southern Illinois coal fields to a plant site on the lower Mississippi would be about 500 miles. A 900-mile route would be equivalent to the distance between eastern Kentucky and Dallas-Fort Worth area, whereas 1,500 miles would be comparable to the distance between Wyoming and the lower Mississippi/Gulf Coast areas.

Transportation Alternatives

For the study, four energy transportation methods were explored. They were: electric energy transportation by transmission lines; coal transportation by railroad; railroad and barge coal transportation, and coal energy transportation by pipeline.

A key issue in the study of electric energy transportation by transmission lines is the selection of the most feasible line voltage to be used. Four transmission voltages were examined to determine the most economical and feasible system for each power level and distance. Two of the cases were high voltage direct current (HVDC) and two were high voltage alternating current (HVAC) power systems. The two direct current voltages selected were 400 and 600 kV. The two alternating current voltage levels were 500 kV and 765 kV. The 500 kV and 765 kV voltages are, of course, a proven technology, whereas 1100 kV and higher voltages were not included in the comparison as we are not as optimistic about their application in the near future.

Series and shunt compensation are assumed for the AC lines because of circuit length and loading. Bundled conductor configurations were selected. All lines are of single circuit construction.

Since the systems would be designed to carry rated load with one circuit out of service, a minimum of two lines was considered for all cases, although up to five circuits were investigated for some situations.

Unlike the other energy transportation alternatives, the transmission lines require a larger net generating capacity to account for the I^2R losses which will be experienced over the length of the transmission lines. The increase in capacity would have to be slightly greater than these line losses to provide an equivalent capability at the point of delivery.

This increase in power plant size is reflected in the costs developed for this alternative.

The second alternative studied was coal transportation by railroad. Unit trains are dedicated freight trains typically made up of between 70 and 110 dedicated coal cars which are for the exclusive delivery of coal to a specific customer's plant at a special reduced freight rate. The train length is usually specified by the railroad, and is responsive to such logistical considerations as the delivery rate, the terrain over which the train must travel and the length of sidetracks along the route selected.

A lower freight rate results with unit trains because of the greater utilization of the equipment. Typical railroad freight cars spend only a small percentage of their service lives moving a revenue-producing cargo.

The unit train freight rate is developed by the carrier after a detailed cost study. It takes into account track conditions, terrain, motive power, drawbar pull, coal tonnage to be moved and the length of the haul. Loading and unloading times are specified with extra charges accruing if they are exceeded. The carrier provides the motive power and train crew. The coal cars can be furnished by the carrier (at a higher rate of course), by the receiver, or by the shipper. A leasing contract could also be negotiated with a car leasing company.

Ebasco recommends that coal-burning utilities seriously consider acquiring their own fleets of coal cars. The nationwide availability of hopper cars will not be improved by the expected increase in coal usage nor by carriers in poor financial health who are having difficulty finding the resources to properly maintain existing equipment and right-of-way, and have limited capital to invest in new fleets of coal cars. During car shortages, railroad-owned cars normally used in utility unit train service can be diverted into other movements with consequent effects on coal deliveries. For this study, Ebasco assumed all movements were in utility-owned cars.

Railroad and Barge

A combined unit train-barge coal transportation system could service power plants along a major navigable waterway, such as the Mississippi and Ohio rivers, via the intercoastal canal along the Gulf Coast, or via larger sea-going barges operating off the Gulf or Atlantic Coasts.

Barge transportation of coal is an efficient and growing industry. Since 1971, barge lines have increased their share of coal traffic from 140 million to more than 157 million tons per year. Single tows have grown to as much as 70,000 tons by river and 90,000 tons by blue water. The so-called "jumbo" barges (1,500 ton capacity) are rapidly becoming the standard river barge size. And towboats which push a string of barges are being built with larger drive units.

Moving coal by barge has generally been lower in cost than rail. One of the reasons for this was that the barge lines' right-of-way has been maintained and improved by the U.S. Corps of Engineers. Beginning in 1980, a user's tax was imposed on the fuel used to help defray the cost of maintaining the inland waterway transportation system. The law provides for annual increases through 1985, but

RAIL-BARGE COAL MOVEMENTS

MOVEMENTS (MILES)			
By Rail	100	300	1,000
By Barge	400	600	500
Total	500	900	1,500
TYPICAL ROUTE			
From	West Kentucky	East Kentucky	Wyoming
To	Lower Mississippi	Fort Worth/ Dallas Area	Lower Mississippi/ Gulf Coast

Figure 1

COAL SLURRY PIPELINE SIZES

ENERGY TRANSPORT				
Peak Megawatts	1000	3200	6400	9600
Billion kWh/Yr	8	18	38	61
COAL TRANSPORT				
Million Tons/Yr	4.5	9.9	18.0	25.0
LINE DIAMETER				
Inches	18	24	34	40

Figure 3

proposed changes may more than triple the present levies. It is safe to assume that any increases will pass through to the shipper. Cost savings in barge transport are also offset partially by the cost of the transfer from rail to barge (or vice versa).

For purposes of comparison we have assumed the railroad and barge hauls would be split as shown in Figure 1.

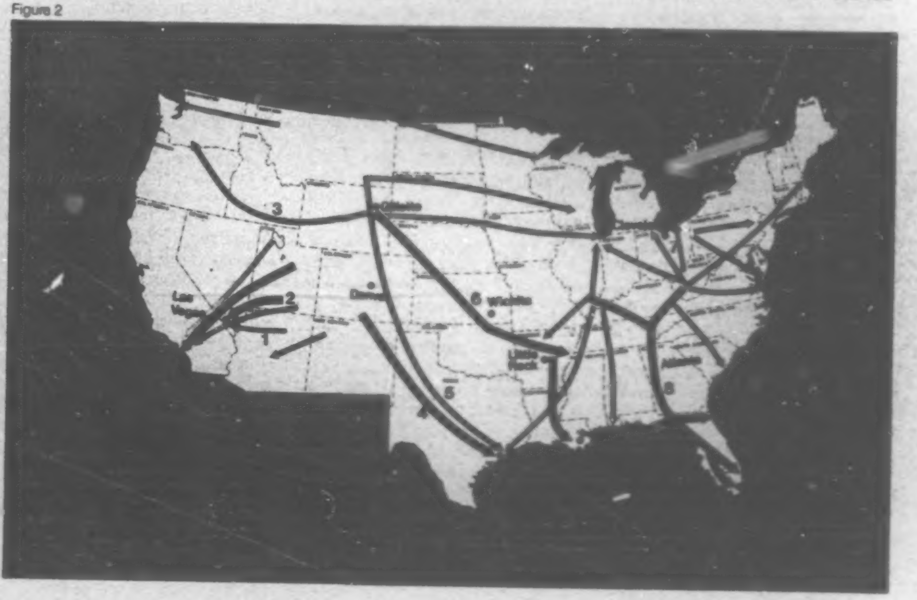
Thus, the coal would move from mine to the river barge loading facility by unit train, and thence via a waterway to the plant barge unloading facility. Alternatively, the coal could be loaded directly onto barges from a riverside mine and then be transferred to unit train for delivery to the power plant. Cost estimates herein for rail-barge systems contemplate only one transfer—from rail to barge or barge to rail.

The towboats and barges are normally provided by the barge line. In order to transport the coal in the tonnage under consideration, the barge lines would probably have to build or purchase new equipment, requiring considerable investment. Consequently, a long-term contract with guarantees permitting them to amortize most of this investment, would probably lead to a more favorable freight rate. Consideration might also be given to some financial assistance or participation by the utility.

Barge rates, analogous to unit train rates, depend on the volume, distance and the route to be traveled. The latter may dictate maximum size of tow and whether the tow must be broken to pass through locks. Both of these factors affect costs.

Although coal transportation via waterborne transport from the mine-mouth to the ultimate user is certainly a viable alternative, such movements are unusual in the industry. In most cases, a rail leg is required to reach a navigable waterway, either at the mine or user end of the movement. For this rea-

Figure 2



son we did not work up the costs of movements by barge for the purposes of this article. But generally speaking, barge transport is usually quite competitive with rail transport.

Pipeline Transportation

Another method of transporting coal is in the coal-water slurry form via pipeline. The first U.S. coal pipeline, a 108-mile, 10-inch line, was built in 1957 to counteract high coal freight rates. The line serviced the Eastlake Station of Cleveland Electric Illuminating Company. After start-up, this pipeline operated successfully. The railroad tariff for hauling coal to the station was subsequently reduced, after which the line was shut down having accomplished its purpose.

Currently, the only coal slurry pipeline in service in the U.S. is the Black Mesa Pipeline which was installed in 1970. This is an 18-inch diameter line that extends a distance of 273 miles from the Black Mesa coal field in Arizona to the Mohave Power Generating Station in Nevada. Approximately 5.5 million tons per year of coal are delivered through this pipeline to supply two 750 MW generating units.

It is of interest to note that during the initial planning stages for this power plant project, Southern Pacific Railroad Company made an economic evaluation of the cost of installing either a new rail line or a pipeline to transport the coal from Black Mesa. The results of the study reportedly favored the slurry pipeline, and Southern Pacific Railroad formed the subsidiary Black Mesa Pipeline Company to handle this project. The pipeline involves a section of the Santa Fe Railroad right-of-way. Santa Fe is paid a fee based on the tons of coal shipped via the pipeline.

The reliability of this pipeline over the past 10 years has been more than 98 percent. As an outgrowth of the outstanding success of the Black Mesa Pipeline, plans have been announced for a total of eight other slurry pipeline applications. The location, length and annual capacity for each planned pipeline project are shown in Figure 2.

Two major obstacles have been hampering the progress of these planned slurry pipelines. One stems from the resistance of railroads to permit a pipeline to cross their right-of-way. The other major obstacle has been obtaining the necessary agreement of states for water rights to operate an interstate slurry pipeline. A maximum of 800 acre-feet of water is required to be mixed with each million tons of coal to obtain a typical slurry with equal parts of water and coal by weight.

Despite these problems, Energy Transportation Systems Incorporated has been making substantial progress with its planned 1,040-mile line to deliver 25 million tons per year of Wyoming coal to the Arkansas and Louisiana area (Item 6 on Figure 2.) Reportedly, it recently made a decision to complete the final design by 1982 and initiate construction shortly thereafter so as to have this slurry pipeline in service by 1985.

A coal pipeline starts with a slurry preparation plant at the mine. Here the coal is crushed to particles about one-tenth of an inch and smaller in diameter, and is then mixed with water to make a 50 percent coal—50 percent water slurry by weight. This is pumped at 1200 to 1500 psi into the pipeline. Over level terrain, the line pressure drops off to about 100 psi after about 70 miles, at which point a pumping station is installed to repressure the line to 1200 to 1500 psi. This is repeated at approximately 70-mile increments.

At each pumping station, a dump pond is provided with capacity to contain the pipeline volume between that station and the upstream pumping station. The pond permits the emptying of each section of the line for repairs or for an emergency. When the line is returned to service, the coal may be dredged from the pond in slurry form and reintroduced into the pipeline.

The slurry moves at about 6 feet per second inside the pipe. This means, for a 900-mile trip, that the coal is in transit for nine days. A 900-mile long, 24-inch line delivering coal at the rate of 9 million tons per year would contain about 270,000 tons of coal in transit at any one time. By comparison, for a typical 900-mile unit train movement, the total turnaround time would be about six days, of which the coal would be in transit for about three days. At a rate of 9 million tons per year, an average of about 84,000 tons of coal would be in unit trains in transit at any one time.

The slurry is passed through centrifuges at the receiving end of the line, thereby producing a coal "cake" with approximately 25 percent moisture content. The water removed is treated to remove additional fine coal dust and then treated to be used for plant services or for disposal. The pipe sizes for each of the annual coal tonnages are indicated in Figure 3.

If the vast amounts of western coal projected as a future fuel supply are to be moved by pipeline, this requires performing a complete water resource evaluation study in order to produce a viable system design that is environmentally acceptable. Fortunately, this concern may not apply to the same degree to the rest of the country. Additionally, the water is contaminated and must be treated for use in plant services or for disposal. Disposal of the untreated water would not be environmentally acceptable.

In addition to water, another problem exists; however, it is a man-made problem and is therefore soluble. The coal pipeline, as yet, does not enjoy the same right of eminent domain that gas and oil lines possess. This poses a real problem since a typical 900-mile line, for example, may cross nearly 200 major transportation rights-of-way, including 30 major railway crossings. Railways are definitely not inclined to permit such crossings to a competing mode of transportation. Since 1975, a series of bills have been unsuccessfully introduced in Congress to grant this right. The legislation will certainly be reintroduced and, it is hoped, ultimately passed, either in Congress or at the state level.

Environmental and Licensing Considerations

During the study, Ebasco examined environmental and licensing considerations for the alternate methods of transporting coal and energy.

Railroad and rail-barge system expansions for the most part result in increased traffic along existing routes, with new rights-of-way usually only required to connect a new mine to the nearest rail lines or docking facility. However, the increased traffic on existing rail lines caused by mile-long unit trains is already creating undesirable effects, such as added noise pollution, cross-traffic tie-ups, and increased coal dusting in areas contiguous with the railroad line. Of course, there are means available to deal effectively with each of these potential problems, but, in most cases, these mitigating measures involve substantial capital expenditures by a railroad industry that is already having difficulty obtaining the resources to maintain existing right-of-way and rolling stock.

The possible environmental impacts discussed in most licensing documents regarding electric power transmission lines predominately involve localized field effects, audible noise (particularly for 765 kV and greater), and those impacts normally associated with any clearing and construction activity. There is also a localized impact on the view shed, since few individuals will find the structures associated with modern transmission lines to be aesthetically pleasing. Properly implemented, the most significant impacts would be those on native flora and fauna disturbed during deforestation of the right-of-way, which must be somewhat wider than required for a railroad or pipeline.

The coal slurry pipeline requires a very narrow right-of-way and, once installed, is invisible except for the low-profile pumping stations every 70 miles or so. In addition to obtaining approval of the environmental impact report for licensing, various approvals must be obtained to construct the line. For example, a 900-mile pipeline could typically involve as many as 130 highway crossings, 30 major railroad crossings, 25 river crossings and 10 major natural gas pipeline crossings. Obtaining approval for all these "crossings" is a significant problem. However, eminent domain regulations relative to coal pipelines could reduce the effects of these encumbrances.

Water availability is also an important consideration. For example, a 9 million tons per year pipeline will require 7,200 acre feet of water each year for transport medium. This is about 2.33 billion gallons annually, 4,500 continuous gallons per minute, or a flow commensurate with the fresh water needs of a population of about 65,000 people. Also, this water will become contaminated and must be treated at the discharge end of the pipeline before use or disposal. Alternatively, the water used as the transport medium could be recirculated. This would substantially reduce the amount of fresh water needed to that required for make-up. Only a small blowdown stream would need treatment. Unfortunately, the capital costs could increase by about one-quarter to one-half, and the operating costs could nearly double.

Comparative Costs

For the purposes of our investigation, a number of assumptions were made to determine the comparative costs of the alternative energy transportation systems. The levelized annual cost figures were calculated on the basis of a 12.8 percent discount rate for the pipelines, 14 percent for rail transport and 14 percent for transmission lines levelized over the anticipated life of each system. Levelizing equates an annual cost that is continually escalating over the anticipated life of the system to a uniform annual cost figure. Both values yield the same present-worth dollar value over a specific amortization period.

The pipeline discount rate was developed based on 80 percent debt and 20 percent equity financing, while the other alternatives used financing typical of investor-owned utilities. A representative amortization period was used. The annual escalation rate was assumed to be proportional to the projected GNP deflator, adjusted appropriately. All cases assumed initial operation in 1986.

The following additional basic assumptions were made in arriving at the costs for each system.

Transmission Lines

- The 500 kV and 765 kV (AC) transmission line costs were based on American utility experience with this line rating. The 600 kV (DC) line basic design was estimated as being 75 percent of the cost of a similar 765 kV (AC) line. The costs for the other DC line voltage and conductor configurations were extrapolated. DC terminal equipment costs are based on manufacturers' recent information.
- Right-of-way widths were chosen which would permit a collapsing tower on one line to fall clear of the neighboring line. A cost of $4,000 per acre was assumed, which included clearing, access roads, gates, etc.
- Fixed charges were taken as 18.1 percent. Financing was assumed at a typical utility's debt-equity ratio.
- Investment costs were escalated at a rate proportional to the projected GNP deflator, adjusted as appropriate. Operation and maintenance costs were taken as 1

Figure 4

percent of the investment costs, escalated and levelized.

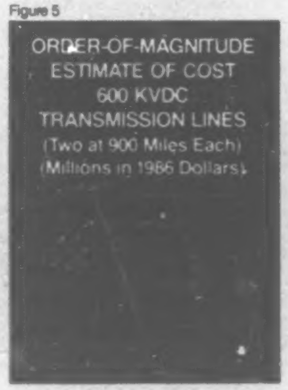
Railroad and Rail-Barge Systems

- Existing rail lines were assumed available to deliver coal from the mines to the plant or to the barges.
- Unit train and barge rates for such large volume movements were not available from a published tariff schedule. The rates used in this study are representative of those that Ebasco believes could be negotiated with the carriers and are based on other known unit train and barge freight rates.
- Hopper car costs were obtained from a manufacturer. Replacement was assumed to take place every 15 years, with a negligible salvage value. Car costs were escalated appropriately. Fixed charges were assumed to be 17.5 percent. This is slightly less than the transmission lines, as no property taxes are included.
- Maintenance costs were based on published data on cars in unit train service, escalated and levelized.
- Based on the long-term trend, rail freight rates and barge rates were assumed to escalate at the rate proportional to the projected GNP deflator, adjusted appropriately, as were car maintenance costs.

Coal Slurry Pipelines

- Investment costs were estimated in detail on an order-of-magnitude basis for a specific intermediate case and then adjusted as appropriate for the other alternatives.
- Fixed charges were taken at the rate of 13 percent, based on 80 percent debt and 20 percent equity financing, i.e., nonutility-type financing. The assumed capitalization structure used in developing the fixed charge rate, combined with certain tax advantages, resulted in tax write-offs in the early years of operation which would be substantially in excess of the taxable revenues that would be generated by the pipeline. It was assumed that these tax write-offs would be used to offset corporate tax liabilities due to income from other sources. If it had been assumed that the slurry pipeline was a stand-alone operation, then these tax advantages would not be available, and a fixed charge rate of 15 percent would be appropriate.
- Energy costs were based on actual utility rates. The energy costs included consideration of pumping costs and preparation plant energy costs. Recirculation was not assumed.
- Material and labor costs were escalated for 1986 initial operation at a rate proportional to the projected GNP deflator, adjusted as appropriate.
- Annual costs shown cover nominal costs for minimal water treatment; e.g., pH adjustment.

Figure 5



ORDER-OF-MAGNITUDE
ESTIMATE OF COST
600 KVDC
TRANSMISSION LINES
(Two at 900 Miles Each)
(Millions in 1986 Dollars)

Investment Estimates

Coal pipelines and electric transmission lines require the largest investment of the four alternatives studied. Coal transportation by rail or rail-barge requires lower investment expenditures. If the carrier provides the coal cars, there is essentially no investment required of the utility other than the facilities at the power station. This study is based on the use of utility-owned cars, as this option is becoming more predominant with the industry because of its economic and logistic advantages.

As an example, a 900-mile coal pipeline, delivering 9 million tons of coal per year to generate 3200 MW, is estimated to cost $1,309 million based on a 1986 operating date. Figure 4 shows the basis of this estimated cost.

On the other hand, transmitting 3200 MW of electric power 900 miles via two 600 kV (DC) circuits requires an investment of approximately $2,453 million, based on initial operation in 1986. The basis of this estimate is summarized in Figure 5.

For a 900-mile movement of 9 million tons of coal, via rail or rail-barge transportation, the initial utility investment for hopper cars in 1986 dollars is estimated to be $107 million for an all rail transport mode and $44 million for a rail-barge transportation alternative with a 300-mile rail movement. Additionally, approximately $4 million would be required for coal in transit. The barges and towboats are assumed to be provided by the carrier.

These initial investment figures are obviously important, but no finite conclusions should be made without completely evaluating the alternatives with regard to both investment and operating costs.

Two of these alternatives are heavily investment-oriented (coal pipeline and electric transmission lines), but the other two (rail and rail-barge transportation) are more sensitive to inflationary factors as they relate to annual costs. The latter factors include labor and transportation rates (i.e., operating labor and railroad and rail-barge haulage rates). The capital investment items do not escalate once they are installed, with the exception of the rail cars which must be periodically replaced.

Total Transportation Costs

Total transportation costs include fixed charges on investment and annual operating and maintenance costs.

In the case of rail or rail and barge transportation, the freight charges remain the major component with relatively small amounts for investment and maintenance. Rail freight rates and rail-barge freight rates used in the study are shown in Figure 6, and are based on mid-1981 conditions, utility-owned coal cars, and the assumed routes (see Figure 1).

Although it is believed that the rates shown are approximately representative of those typically resulting from current negotiations with carriers, it should be understood that all rail and barge transportation rates are negotiated and are therefore subject to the vicissitudes of the marketplace.

Figure 6

In the case of the capital-intensive pipelines and transmission lines, the major component of the annual costs are the fixed charges on investment, with the levelized operation and maintenance being relatively small. The pipeline fixed charges are about 65 to 94 percent of the annual costs, with the balance the operating and maintenance costs. With between 6 and 35 percent of their annual costs fixed, the coal piplines are inflation resistant, with only a small component of the annual costs subject to escalation forces.

In an evaluation of owning and operating costs in which a capital intensive alternative is evaluated to be approximately equal to an operating intensive alternative, it usually may be assumed that the two alternatives are economically equivalent. Actually, for a regulated utility, the capital intensive alternative may be the more attractive of the two, if the state public service commission responds to commensurate rate base adjustment requests on a timely basis. Figure 7 indicates the portion of the annual costs subject to escalation factors for each transportation system considered.

APPROX. PERCENTAGE OF ANNUAL COST SUBJECT TO ESCALATION

SYSTEM	ESCALATION COSTS (%)
All Rail	96
Rail/Barge	97
Pipelines	30
Transmission Lines	6-35

Figure 7

The variations in the transmission line percentage costs are due to the I^2R line losses which vary both with electrical load and energy transporting distances. Because of this, additional generating plant capacity is required, but only with the transmission line alternative. This variation does not exist with the other alternatives as the generating plants are assumed to be located reasonably close to the load centers.

Figure 8 shows the levelized annual owning and operating costs for each of the four alternatives for the three distances studied: 500, 900 and 1,500 miles. It illustrates the impact that both inflating operating costs and large capital investment equipment have on annual costs and how they vary with transportation distances and size of the power block being transported.

Figure 9 provides a tabulation of the levelized annual owning and operating costs of the alternatives studied, based on a 1986 initial operating date, showing the cost differentials over the lowest cost alternative. The chart shows that coal-water slurry pipelines are the most economical system analyzed here in all cases. Rail and barge transportation systems are the next most attractive alternative in all but those cases where very large blocks of power were transmitted over extreme distances. In those cases, transmission lines were more cost effective.

Advanced Systems

In the years since OPEC began rapidly escalating the world price of oil, considerable attention has been given to the development of

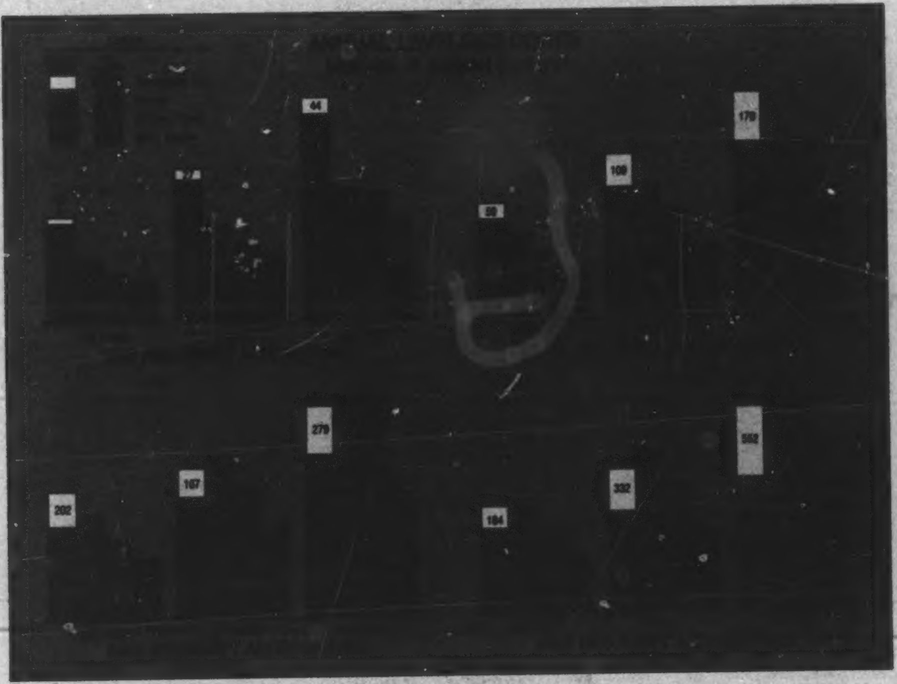


Figure 8

less costly substitutes for oil. Two alternatives which have attracted some attention are coal-oil mixtures and metha-coal, a thixotropic mixture of pulverized coal and methyl (wood) alcohol.

In consideration of the potential use of these alternative fuels (and certain similar derivatives), Ebasco has tentatively explored a number of transportation scenarios which would use technologically advanced systems to transport mixtures of coal with liquid fuels. Examples would include:

- Transport of a slurry of coal from the Powder River Basin and crude oil from the Overthrust Belt (a relatively new field in the nearby Rockies) via a slurry pipeline to Texas, where the majority of the crude oil would be separated from the mixture and refined, and the coal burned in a steam-

Figure 9

ANNUAL OWNING AND OPERATING COSTS
TOTAL COST/COST DIFFERENTIAL
(Millions of Annual Dollars, Levelized)

GENERATION (MEGAWATTS)	TRANSPORT METHOD	500 MILES		900 MILES		1500 MILES	
		TOTAL COST	DIFF. COST	TOTAL COST	DIFF. COST	TOTAL COST	DIFF. COST
1600	Transmission Line:	250	161	364	214	538	308
	Railroad:	146	57	227	77	316	86
	Railroad & Barge:	110	21	185	35	307	77
	Slurry Pipeline:	89	BASE	150	BASE	230	BASE
3200	Transmission Line:	400	248	553	310	776	412
	Railroad:	292	140	455	212	633	269
	Railroad & Barge:	220	68	370	127	615	251
	Slurry Pipeline:	152	BASE	243	BASE	364	BASE
6400	Transmission Line:	718	388	843	353	1196	440
	Railroad:	584	254	908	418	1163	507
	Railroad & Barge:	439	109	740	250	1229	473
	Slurry Pipeline:	330	BASE	490	BASE	756	BASE
9000	Transmission Line:	828	407	1115	466	1596	575
	Railroad:	812	391	1261	612	1755	734
	Railroad & Barge:	609	188	1027	378	1707	686
	Slurry Pipeline:	421	BASE	649	BASE	1021	BASE

electric generating station.

- Transport of a slurry of coal from the Powder River Basin and methanol (synthesized from the coal) via a slurry pipeline to an electric utility with substantial oil and gas-fired capacity. There the slurry could be separated, the methanol sold for conventional uses and/or fired in lieu of oil or gas in the existing units, and the coal fired in a new or existing plant designed to fire coal. Alternatively, the metha-coal mixture might be fired if existing plants were feasibly convertible to metha-coal firing, or if new metha-coal firing plants were built.

Although we have not presented an analysis of the relative costs of these advanced technologies, it would appear that a coal slurry pipeline which transports the coal in a liquid fuel medium (instead of in water) may be potentially more economical. However, this conclusion is based on the following specified preconditions:

- There is a need to transport both the coal and the liquid fuel medium to the discharge end of the pipeline; ie, there is a market for both the coal and the liquid fuel at the pipeline discharge end.
- It is less costly (or no more costly) to produce or obtain the liquid fuel at the pipeline inlet end than at the discharge end.
- There are no insurmountable technological problems with the full scale coal-oil or metha-coal pipeline systems.
- In the case of the crude oil-coal slurry, there is adequate refinery capacity at the pipeline discharge end to accept the throughput.
- It is possible to obtain the right of eminent domain for the pipeline right-of-way.

Given these premises, and recognizing the economical viability of the similar coal-water slurry pipeline, a conclusion of potential economical viability follows. Further, although we have not evaluated the economics in detail, we believe they could be quite favorable. Also, the water problems associated with the coal-water slurry are avoided with the coal-crude oil slurry pipeline, and substantially mitigated or avoided with the metha-coal pipeline. In both systems, there is no contaminated transport water to be treated, then used or discharged. There are no water makeup needs with the coal-crude oil slurry, and the water requirements for production of the methanol (for the metha-coal pipeline) are substantially less than for a coal-water slurry pipeline: in fact, given sufficient moisture in the coal, process requirements for water may be negligible.

Conclusions

Based upon the parameters assumed in the study, coal-water slurry pipeline transportation systems are the lowest cost mode of energy transportation analyzed here, followed by the rail-barge system. However, the proposed coal-water slurry pipelines presently have problems with right-of-way acquisition (due to the absence of eminent domain legislation), and environmental issues (makeup water sources and effluent water disposal).

Barge and rail transportation systems are worthy of consideration if (a) navigable waters for barge movements are available, and (b) the tonnage, total distances and split between rail and barge hauling distances are in proportions which will result in a competitive cost, given the variability of the tariff structure.

Coal-water slurry pipelines and transmission lines are more inflation-proof than rail or rail-barge modes of transportation because of the low overall operating and maintenance cost associated with coal slurry and power transmission lines. This should be weighed against the high operating cost of the rail and barge system alternatives when selecting the type energy transportation to use for your new coal-fired power plant.

If coal pipelines are to be viable, the right of eminent domain must be available to the user. In order to accomplish this, utilities must pursue this with their legislative leaders, both at the state and national level. Additionally, suitable supplies of makeup water must be obtained, and provisions made to treat and dispose of the effluent water.

Consideration should be given to advanced pipeline concepts, including coal-oil slurry transport and metha-coal slurry transport. These concepts may have potential economical and environmental advantages over conventional coal-water slurry pipelines.

Before implementing an energy facility that involves the long distance transport of large blocks of energy, due consideration should be given to comparative assessments of the engineering, economical and environmental feasibility of the energy transport systems available. These assessments would be made within the constraints of the specific energy transport scenario anticipated, with particular attention to resolution of any potential problems which might have an impact on the end user. ☐

As chief consulting engineer in Ebasco's Atlanta Regional Office, Mr. Greco supervises a broad range of mechanical consulting services for electric utilities and energy-intensive industries. These services include engineering economic studies, conceptual design studies, specialized engineering and retrofit engineering.

A principal engineer in the Consulting Engineering Department, Atlanta office, Mr. Sherlock supervises conceptual engineering studies and alternative energy studies involving fuel acquisition and transportation. He also performs econometric studies on availability improvements, conceptual engineering and cycle optimization. Before joining Ebasco in 1974, Mr. Sherlock was a nuclear power engineer with Tenneco.

HOUSTON LIGHTING & POWER COMPANY
P. O. Box 1700
Houston, Texas 77001

D. D. JORDAN
PRESIDENT
AND
CHIEF EXECUTIVE OFFICER

May 7, 1982

The Honorable James A. McClure, Chairman
Committee on Energy and Natural Resources
U. S. Senate
Washington, D.C. 20510

Dear Senator McClure:

Houston Lighting & Power Company strongly feels that federal legislation should be enacted to grant eminent domain authority for coal slurry pipelines. This is why we are urging support of S. 1844, which we feel is needed to provide the competition in coal transportation that will result in a reduction in the cost of electricity.

Our ambitious construction plans for new generating plants, necessary to keep up with the vibrant growth in our area, must consider increased use of coal. Since the type of fuel utilized is highly dependent upon the transportation costs, the method of transportation available is critical.

Coal is one of the few options we have available to supply our future fuel needs. HL&P currently has a 30-year supply contract for Wyoming and Montana coal for our existing plants where the only transportation available from these sources is by railroad. The supply of this coal and requirements for our future plants, coupled with current and future requirements of other utilities in Texas and Louisiana could more than justify the cost of building a coal slurry pipeline.

Our estimate of savings to our customers utilizing a coal slurry transportation system, if it were available today, would be $2.2 billion (present day dollars) for the remaining life of our current coal plants. For future plants, these savings would be multiplied by the number of units using coal.

We are fully aware of the need to maintain a viable railroad industry, and, indeed, we support that concept. However, we do not feel that our customers should be forced to pay excessively high electric rates to contribute to the revenues of certain rail haulers of Western coal which are in much better financial condition than are railroads in the East.

The Honorable James A. McClure
May 7, 1982
Page 2

We believe that the rail rates for hauling of our coal would be entirely different were there a coal slurry pipeline industry in operation today. Coal slurry lines would provide an alternative form of transportation that at the very least would create a competitive incentive for the establishment of more realistic rates by railroads.

We are convinced from our own experience that such an incentive is urgently needed, especially now after Congressional passage last year of the Railroad Deregulation Act. We are equally convinced that without reasonable transportation rates, attainment of the national goals of developing and utilizing this country's vast coal resources -- and decreasing our dependence on foreign oil -- will be seriously jeopardized.

The currently planned coal slurry projects (ETSI and Coalstream) will neither gather coal in nor deliver coal to certain of the states through which these projects will pass. Thus, they will conduct no intrastate activity in such "host" states and in several instances cannot therefore pass the state Public Use and Necessity Test for eminent domain. Federal legislation is necessary.

For these reasons, we respectfully request your assistance in passing federal legislation that would grant eminent domain to facilitate development of coal slurry pipelines.

Sincerely,

DD Jordan

James F. Maguire, President
OFFICE (317) 638-6997

MAY 11 / 20 AM '82

INDIANA COAL COUNCIL, INC.
701 HARRISON BLDG • 143 W MARKET STREET
INDIANAPOLIS, INDIANA 46204

May 10, 1982

STATEMENT TO THE UNITED STATES SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

By

JAMES F. MAGUIRE
PRESIDENT
INDIANA COAL COUNCIL, INC.
May 10, 1982

INTRODUCTION

Thank you for the opportunity to express our views on the important issue of coal slurry pipelines. Many able speakers will address you on May 10th in support of coal slurry pipeline legislation. We add our voice to the broad coalition of supporters who believe that the time has come for Congress to add a new and exciting dimension to the transportation of America's most plentiful resource.

WHO WE ARE

The Indiana Coal Council, Inc. is a trade association representing Indiana's coal industry. Our member coal company operators and reserve holders include: AMAX Coal Company, B & LS Contracting, Inc., Bicknell Minerals, Black Beauty Coal Company, Energy Supply, Inc., Fossil Fuels Mining, Inc., Green Construction of Indiana, Inc., J & R Coal Company, Mulzer Crushed Stone Company, NERCO, Indiana, Old Ben Coal Company, SHAND Mining, Inc., Solar Sources, Consolidation Coal Company, Mid-America Pipeline Company (MAPCO), and SHELL Oil Company. Indiana has over 17.5 billion tons of commercially recoverable coal reserves. We are the 9th largest producer of coal in the United States.

WHAT WE WANT

We urge you to enact legislation authorizing the construction of coal slurry pipelines. This requires the granting of federal eminent domain legislation to coal slurry pipeline companies. Construction of these pipelines cannot be accomplished without federal eminent domain powers.

WHY WE SUPPORT COAL SLURRY PIPELINES

Coal is transported today in one of three basic methods: rail, truck, barge. Each method has limits and problems. The cost of each method will increase in the future. De-regulation by Congress will add to the cost increase.

Coal slurry pipelines will add a new dimension to the transportation of coal. They will also bring increased competition into the coal transportation marketplace.

We believe that Indiana and the other Illinois Coal Basin states will benefit from coal slurry pipelines. Almost all of the coal produced in Indiana, stays in Indiana. As a matter of fact, Indiana is a net importer of coal. We believe this situation should be reversed. Indiana should and can export its vast coal resources out of state and over-seas. Coal slurry pipelines will help us reach this goal.

CONCLUSION

Your support for coal slurry pipeline federal eminent domain legislation will be greatly appreciated.

WEST VIRGINIA COAL ASSOCIATION

May 6, 1982

ENATE COMMITTEE
RGY AND NATURAL RESOU
RECEIVED
JUN 2 1982
WASHINGTON, D.C. 20510

Senator James A. McClure, Chairman
Senate Committee on Energy & Natural Resources
3106 Dirksen Senate Office Building
Washington, D. C. 20510

SUBJECT: S. 1844

Dear Senator McClure and Committee Members:

The West Virginia Coal Association is a trade association comprised of underground coal producing companies which collectively account for over 85 percent of the state's underground coal output. As you know, West Virginia is the second leading coal-producing state in the U.S., the leading underground producer.

Our membership is keenly interested in and supportive of the proposed legislation to provide interstate eminent domain rights to lead the way for potential coal slurry pipelines. If, as we hope, coal is to become increasingly utilized by utilities and other such consumers in the south and southeast, the matter of transportation becomes key to the equation. Proponents of slurry lines view it as a means to efficiently and economically supplement the traditional transportation networks carrying coal and we strongly believe such concerns should at least have the opportunity to pursue such developments.

Opponents of coal slurry pipelines frequently raise questions of the feasibility, efficiencies and/or economies of such. However, that should not be of their concern; private enterprise entities are the ones indicating a desire and intent to commit the capital investments to make such a reality. If they can, they will; if they can't, they won't. But, there is no good basis for allowing the absence of eminent domain rights to be the deterrent.

We strongly encourage you and members of your committee to offer supportive attention to this legislation and we trust you will share this communication with your committee.

Sincerely,

Edwin K. Wiles
Edwin K. Wiles
President

1340 One Valley Square • Charleston, West Virginia 25301 • Telephone (304) 342-4153

WEST VIRGINIA COAL: MORE IMPORTANT THAN EVER
We've Got A Job To Do!

EXECUTIVE OFFICES

ISLAND CREEK COAL COMPANY
2355 HARRODSBURG ROAD P.O. BOX 11430 LEXINGTON, KY. 40575 TELEPHONE 606/223-3636

May 4, 1982

The Honorable James A. McClure
United States Senate
3121 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator McClure:

I am writing to you in your role as Chairman of the Senate Energy and Natural Resources Committee. As you conduct public hearings on S 1844, coal pipeline legislation, I believe it is essential for your committee to be aware of the importance we place upon the granting of federal powers of eminent domain for coal pipelines.

I speak not only for Island Creek Coal Company, a major coal producer, but also as their representative in Coal Associations in several states.

Both the Kentucky Coal and West Virginia Coal Associations have recently passed formal resolutions supporting the pipeline legislation. The importance of such support is given dimension when one considers that the West Virginia Coal Association represents two-thirds of the coal production of the State. The Kentucky Coal Association represents over 40 percent of Kentucky's. Thus, the two groups mentioned cover about 125 million annual tons of production, 15 percent of the U. S. and 30 percent of Appalachia.

My encouragement for positive committee action does not come from technical reasons, but from principles which are of paramount importance.

These principles are the assurances of competition and alternative means of transportation. The coal business, where transportation is considered, lacks all of the above. The real day-to-day world of mining has us captive to railroads, in most cases one railroad. We are at an absolute disadvantage in any rate-setting exercise. While it would be nice to accept the industrial "brotherhood" and ties that argue for keeping coal competitive, in practice it has not worked. With deregulation of the railroad industry, it should not fear competition if it does its job properly. At least one major railroad, the Burlington Northern has maturely recognized the value of coal pipelines. Its action is an example of the view if one has to produce and market coal as opposed to one which simply moves it.

The Honorable James A. McClure
May 4, 1982
Page Two

I am requesting that you place this before your committee and include it in the record of your hearings on this matter.

Yours truly,

J. E. Katlic
Executive Vice President
Engineering and Government
Relations

Chairman, West Virginia Coal Assoc.
Director, Kentucky Coal Assoc.

JEK/jsf

MAY 14 1982

KANSAS CITY POWER & LIGHT COMPANY
1330 BALTIMORE AVENUE
P.O. BOX 679
KANSAS CITY, MISSOURI 64141

May 12, 1982

ARTHUR J. DOYLE
CHAIRMAN OF THE BOARD
AND
PRESIDENT

ENERGY AND NATURAL RES.
RECEIVED
MAY 17 1982
WASHINGTON, D.C. 20510

Honorable James McClure, Chairman
Senate Energy & Natural Resources
Committee
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Mr. Chairman:

Kansas City Power & Light Company presently burns more than 8 million tons of coal per year in the electric generating units it operates. That is slightly more than 1% of the total annual coal production in this country. In providing electric service to its 350,000 customers, more than 95% of KCPL's total fuel burn is coal. Transportation costs from the coal mines are a very significant portion of the total delivered coal costs to KCPL's electric generating stations. In some movements, rail transportation costs of coal represent 65% of our total delivered costs. As a consequence, coal costs, including rail rates, have a very significant impact upon KCPL's electric service rates to the public.

Since railroad deregulation by the Congress, rail rates for coal shipments have increased dramatically. For example, during the past 15 months ex parte rail rate increases on coal movements have amounted to nearly 42%. Since rail deregulation, KCPL's dollar cost of delivered coal increased more than any other element in KCPL's costs of providing electric service to the public.

We belive that coal slurry pipelines would provide the competition needed to moderate our rail rate increases on unit train coal movements because KCPL and the public we serve are now literally captive customers of the railroads.

For these reasons, we urge your Committee to act promptly and favorably on SB. 1844, the proposed coal slurry pipeline legislation. If further information is desired by you or your staff, I will be most happy to respond. My telephone number is 816-556-2994.

Respectfully,

Arthur J. Doyle

AJD:be

LOUISIANA POWER & LIGHT / 142 DELARONDE STREET
P. O. BOX 6008 • NEW ORLEANS, LOUISIANA 70174 • (504) 366-2345
MIDDLE SOUTH UTILITIES SYSTEM

J. M. WYATT
President and
Chief Executive Officer

May 5, 1982

Honorable J. A. McClure, Chairman
Senate Energy & Natural Resources Committee
3104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator McClure:

As a utility in transition away from our historical boiler fuels, natural gas and oil, we are moving into the era of nuclear and coal. Ever mindful of the fact that transportation costs are becoming of greater significance in the delivered cost of energy to the consumer, we also are keenly aware that early enactment of federal eminent domain legislation for coal pipelines should carry a high priority.

We are confident that the technology of coal slurry pipeline development will help to hold down the consumers' cost for electric service by promoting competition in coal transportation as well as providing the producers of coal with greater marketing potential, and we feel that America's work force will benefit from job opportunities at a time when there is a critical need for employment.

We appreciate this opportunity to let you know, Senator McClure, that we support early enactment of coal pipeline legislation.

Very truly yours,

J. M. Wyatt

JMW:jsr

ANGELO FOSCO
General President

ARTHUR E. COIA
General Secretary-Treasurer

ROBERT J. CONNERTON
General Counsel

Robert E. Powell, 1st Vice-President
Ledger Diamond, 2nd Vice-President
Wilbur Freitag, 3rd Vice-President
Michael Lorello, 4th Vice-President
Ugo Rossini, 5th Vice-President
Mason M. Warren, 6th Vice-President
R. P. Vinall, 7th Vice-President
Joel B. Wiegert, 8th Vice-President

905-16th St., N.W., WASHINGTON, D.C. 20006
TEL. A/C 202-737-8320

May 6, 1982

Honorable James A. McClure, Chairman
U.S. Senate Committee on
Energy and Natural Resources
Room 304, Dirksen Senate Office Bldg.
Washington, D.C. 20510

Re: S-1844 - Coal Pipeline Act of 1982

Dear Senator McClure:

On May 10, 1982, the Senate Energy and Natural Resources Committee will take up S-1844, the Coal Pipeline Act of 1982. At that hearing, the Laborers' International Union will be represented by the Building and Construction Trades Department, AFL-CIO, and we wish to associate our organization with their statement.

Our Union has been a long time supporter of legislation to give coal slurry pipeline companies access to the federal courts in eminent domain cases. We have supported every such piece of legislation that has been introduced to Congress since 1975 - when this debate began. Our reasons for that support arise, not only from the need for jobs in the construction industry, but they are also based on a sincere conviction that coal slurry pipelines represent the best, most efficient and cost-effective means of effectuating America's desire to make effective use of its vast coal reserves.

The need for jobs in the construction industry is too clear and well-known for me to dwell on, at length, in this correspondence. Unemployment in the construction industry has reached a catastrophic 20% or more, with no measurable relief in sight. The legislation under consideration today would open the possibility of a highly, labor-intensive type of construction financed entirely by private money. Plans are completed for at least seven such pipelines which could move forward quickly, if this legislation were passed. A number of other pipelines are in the initial planning stages.

S-1844 gives the sponsors of a coal slurry pipeline the right to go into federal court, in a single case, to assure crossings on private property. The need for such legislation is clear and obvious and has been recognized for all other forms of interstate energy transportation. A recent study for Ebasco Services Corporation makes that need even more clear, when the authors point out that "A 900 mile pipeline could typically involve as many as 130 highway crossings, 30 major railroad crossings, 25 river crossings and 10 major natural gas pipeline crossings." Considering the source of opposition to coal slurry pipelines, the need for federal intervention is, as we said, obvious.

Equally obvious, are the costs and environmental advantages of coal slurry pipelines over alternative forms of energy transportation. Transporting energy, in the form of coal slurry, cost about one-half the rail transportation cost and about one-third the cost of long line electrical transmission. Such figures vary, of course, depending on the size of generating units and the distance traveled.

This is a particularly significant time to consider such costs since, in order to make effective the commitment Congress has made to increase coal use in the United States, all energy transportation forms will require massive new investment. Even if a conscious decision were made to use the existing railroads as our principal coal-haul mode, hundreds of billions of dollars of new investment would have to be made to upgrade track and equipment for the increased traffic. As alternatives to exclusive railroad coal hauling, it does not matter whether we choose coal slurry or long line electrical transmission. Either mode will require the building of vast new facilities. Thus, Congress has the opportunity to act now on an issue that will have a long-term effect on future energy prices in the United States.

Environmentally, buried coal slurry pipelines have significant advantages over either rail or long line transmission. The pipeline requires a much narrower right-of-way than either of the alternative transportation modes. Once the pipeline is in the ground and in operation, the land through which it passes may be allowed to revegetate substantially or may be returned to agricultural use, if that is what it was before the advent of the pipeline. During its operation, the pipeline presents little, if any, threat to either the environment or the people living adjacent to the right-of-way. Unlike the railroad, it spills no dust or grease on the land to harm vegetation or denigrate property values. Nor does a pipeline present the obvious dangers of high-tension power lines or the problem of audible noise on very high voltage lines. In fact, since coal slurry is a mixture of coal and water, slurry pipelines do not even have the danger of explosive leaks that have occasionally marred the performance of oil and gas pipelines.

Of all alternative forms of energy transportation, coal slurry pipelines come closest to being inflation-proof. The reason for this is that the major portion of pipeline costs is in the construction of the facility itself. Operations and maintenance amount to less than 30% of the total utilization costs of a cross-country pipeline. It is those continuing costs of labor, materials and maintenance that are subject to inflationary pressures. In distinction to that, the proportion of annual costs of railroads that are subject to inflationary escalation exceed 90%, while the figure for electric transmission lines runs as high as 35%. Given that utility purchasers normally want to make long-term delivery contracts for their fuels, coal slurry pipelines would provide a solid base for stable energy costs over the long-term. This surely is a subject of as deep interest to the Congress of the United States as it is to consumers.

Aside from the opposition of competing transportation modes, previous coal slurry acts have been held up in futile, and frequently irrelevant, discussions of the water use issue. It is certainly true that coal slurry pipelines are water-using, to a substantial degree. It is also true that the water, thus committed, will emerge from the pipeline system for use or disposal in another state. This is, rightfully, a matter of deep concern to the water-short western states in shich the bulk of our coal resources are concentrated. S-1844 meets this situation intelligently and equitably by leaving those issues to be settled by the individual states. Even though a pipeline sponsor may be able to assure his right-of-way in the federal courts, if S-1844 is passed, he will still have to negotiate for water rights with the state having control over prospective water supplies. S-1844 does not commit this country to a policy of supporting coal slurry pipelines, at the expense of other water-using functions in the western states.

For all of the above reasons, the Laborers' International Union supports the Coal Pipeline Act of 1982. We urge that you also support this legislation in the Committee on Energy and Natural Resources and, hopefully, on the floor of the Senate in this session of Congress.

Thank you and with best wishes, we are

Sincerely,

Angelo Fosco
ANGELO FOSCO
General President

ARTHUR E. COIA
General Secretary-Treasurer

/JJ

Mining and Reclamation Council of America

Suite 525 • 1575 Eye Street, N.W. • Washington, D.C. 20005 • (202) 789-0220

CARL DELSIGNORE
Chairman of the Board

DANIEL R. GERKIN
President

May 7, 1982

Honorable James McClure
Chairman
Energy and Natural Resources Committee
U.S. Senate
Washington, D.C.

Dear Chairman McClure:

Enclosed is an original and four copies of a statement of the Mining and Reclamation Council in support of S. 1844, the "Coal Distribution and Utilization Act of 1981". Your inclusion of this statement in the hearing record for the May 10 Committee hearing on this legislation would be appreciated.

Sincerely,

Daniel R. Gerkin
President

DRG/ta
Enclosures

STATEMENT

MINING AND RECLAMATION COUNCIL OF AMERICA

The Mining and Reclamation Council of America (MARC) is a national coal association representing over 300 domestic members who accounted for approximately 70 percent of our nation's coal production last year. MARC's membership is diversified by company size, geographic location, and methods of operation. Many of MARC's members are small to medium sized independent producers who mine coal by both deep and surface methods and are located throughout the coal producing regions of the United States. MARC strongly supports coal slurry legislation as S.1844 because it will give coal producers a competitive alternative for moving coal more economically to market.

MARC has supported the establishment of the right of federal eminent domain for coal slurry pipeline since its formation and is a founding member of the Alliance for Coal and Competitive Transportation (ACCT). As a member, we endorse the testimony submitted by the ACCT panel.

MARC supports coal slurry legislation for several specific reasons.

- Competition: The coal industry is in dire need of alternatives for the movement of coal from mine to market. Most coal is captive to the railroads, often one carrier, for shipment because there are no navigable waterways available for barge transport and transport by truck is not economically viable for longer hauls. The railroads have recently been able to raise rates dramatically as a consequence of the limited protection available to coal shippers through the ICC following the recent enactment of the Staggers Rail Act of 1980. The threat of, and hopefully, competition from coal slurry pipelines are the only direct marketplace constraints on rail rates for most coal shipments. In the absence of regulation there must be competition.

- Federal eminent domain is necessary: This legislation is essential for the construction of coal slurry pipelines. In the East, railroads own their land in fee-simple and will not permit competition to cross them. For example, if the largest of the planned lines is built in the East it would have to cross railroad lines at approximately 175 points. In the West, eminent domain is necessary to avoid the substantial expense of a multitude of lawsuits in crossing under rail lines as has been experienced by the ETSI pipeline project.

  The federal Constitution contains an interstate commerce clause. The coal slurry legislation applies only to interstate pipelines. Unless Congress wishes to repeal the interstate commerce clause, federal action is necessary and appropriate for this competitive transportation mode to be economically available.

  The Congress has a responsibility to provide for the general welfare of the citizens and to foster interstate commerce. Coal slurry legislation is consistent with fulfillment of those obligations.

- Equity: This legislation is only fair. All the major transportation systems in the United States received the right of federal eminent domain when they needed it including: railroads, interstate highways, and oil and gas pipelines.

- Cost savings: Coal slurry pipelines are economical. Consumers could save billions of dollars in their utility bills, and no taxpayer funds will be used to construct or operate any pipelines.

Some of the opponents of coal slurry pipelines have alledged that smaller and medium sized independent coal producers will not benefit from the construction of coal slurry pipelines. This is wrong. Smaller producers can and will benefit from the construction of coal slurry pipelines.

An understanding of the marketing of coal via pipelines is basic to this point. Some opponents have suggested that coal pipeline companies will be in the business of marketing coal and will seek contracts between utilities and larger producers. This is not correct. Coal pipeline companies will not purchase or sell the coal. The traditional methods of marketing will prevail. Utilities will continue to negotiate directly with coal producers, whether large or small on the quantity, quality and price of the coal to be purchased. The pipeline company will have preparation plants throughout the coal fields that will crush and wash the coal. The producer will then ship the coal to the nearest of these plants via rail, water, truck or pipeline—whichever is the most economic—for shipment to the consumer.

The advantages of coal slurry pipelines to the small and independent producer are three fold:

1. New Markets -- Many smaller producers that do not have a range of quality of coal are limited in the utilities they can sell to. For example, much of the Appalachian high sulphur coal has been excluded from the market. The coal pipelines can blend and batch various qualities to get the right mix. The pipelines will make new markets available to small limited quality producers and afford them a chance to blend their coal with others.

2. Washing facilities -- Many small producers lose markets for coal because of their inability to wash it. Preparation plants cost a good deal of money. Pipeline

companies will provide access to all producers to these plants. Therefore, pipeline companies will give the smaller producers without preparation plants an advantage they do not have now.

3. Equal rates -- Smaller producers often are precluded from markets because of their inability to take advantage of volume discount rates given by railroads. The railroads have established unit train rates for volume shipments. This gives the large producer an advantage. Large and small customers will have equal access to pipelines at equal rates.

MARC supports this legislation primarily because it will help all coal producers--large and small. It will provide desperately needed competition in rates for transportation. It will open up new markets for many producers. As outlined by others testifying on behalf of ACCT, coal slurry legislation will also benefit utilities, labor, consumers and all citizens through helping to strengthen our domestic energy industry.

MINN.
IOWA
ILL.
POWER

GENERAL OFFICE
1000 MAIN STREET
DUBUQUE, IOWA 52001
319-582-5421

MAY 7 1982

May 4, 1982

The Honorable James McClure, Chairman
Energy & Natural Resources Committee
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator McClure:

On May 10, the Edison Electric Institute will be appearing before your committee in support of S 1844. This bill would extend access to the federal eminent domain process to interstate coal slurry pipelines for right-of-way acquisition.

I am writing to express our support for the concept of slurry pipelines as an ~~additional~~ mode for the transportation of coal.

Interstate Power Company, a middle west utility, generates approximately 95% of its electricity in coal-fired power plants. Over 2 million tons will be burned this year--1.54 million tons of which will be shipped by rail from Wyoming and Montana.

We believe that legislation enabling these alternative forms of transportation of coal to be constructed is in the best interest of our industry and its customers. The economic feasibility of any project would, of course, be a requirement for its existence. Our concern is to support rather than oppose alternative methods of transportation.

We do, however, limit our endorsement to the concept of slurry pipelines since we are unable to make a judgment on the ecological implications including the availability or alternative uses of the water required for any specific project.

Sincerely,

DH Buswell

D.H. Buswell
President

DHB/las

JUN 14 1982

NACD

June 11, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 15 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure
Chairman, Committee on Energy & Nat. Res.
U.S. Senate
Washington, DC 20510

Dear Senator McCLure:

The National Association of Conservation Districts has very serious reservations about the bill, S.1844, the Coal Distribution and Utilization Act.

This association represents the 2950 conservation districts which are organized under state statute to develop and implement plans for the conservation of the soil, water and related resources within the districts. Conservation districts include virtually all of the land in the U.S. and have over 2 1/2 million cooperating landowners.

Our main concerns about the bill are as follows:

1. The bill would, in effect, give coal slurry pipeline carriers the federal power of eminent domain over private lands. This is an awesome power to be given to a transportation system which has yet to prove its efficacy.

2. No attempt is made in the bill to limit construction to existing utility or transportation rights-of-way wherever possible. In fact, present statute may preclude such use. It appears to us that multiple use of existing rights-of-way would be the least disruptive and would minimize the need for additional land acquisition.

3. Acquisition of private lands by coal pipeline carriers can cause disruption of agricultural activities during the period of construction, and, unless the pipeline is buried, can disrupt surface activities in the future.

4. Federal eminent domain authority usurps traditional rights of state and local governments for a purpose which has yet to be proven necessary.

5. Although we recognize that this bill proposes not to interfere with traditional state water rights, its passage would put extreme pressures on the states to comply with the wishes of the pipeline carriers relative to water rights.

For the above reasons, we believe that S.1844 is ill-advised. We respectfully request that your committee recommend non-passage of this bill.

Sincerely,

Charles L. Boothby

Charles L. Boothby
Executive Secretary

NATIONAL CATTLEMEN'S ASSOCIATION
425 13th Street, N.W. • Suite 1032 • Washington, D.C. 20004 • (202) 347-0228

National Headquarters
5420 S. Quebec St. • P.O. Box 3469 • Englewood, CO 80155 • (303) 694-0305

June 1, 1982

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
JUN 7 1982
WASHINGTON, D.C. 20510

The Honorable James A. McClure, Chairman
Committee on Energy and Natural Resources
Room 3121 Dirksen Senate Office Bldg.
U. S. Senate
Washington, D. C. 20510

Dear Mr. Chairman:

Enclosed is a statement by the National Cattlemen's Association which I am submitting for the record of the hearing on June 8 by the Committee on Energy and Natural Resources regarding bill S.1844 on coal slurry pipeline transportation.

With best wishes.

Sincerely,

Ronald A. Michieli
Vice President
Natural Resources

RAM:css

Enclosures

NCA
NATIONAL
CATTLEMEN'S
ASSOCIATION

425 13th Street, N.W.
Suite 1032
Washington, D.C. 20004
(202) 347-0228

STATEMENT

of the

NATIONAL CATTLEMEN'S ASSOCIATION

Before The

ENERGY & NATURAL RESOURCES COMMITTEE

U.S. SENATE

Regarding

S.1844, Coal Distribution and Utilization Act

Presented by:

Ronald A. Michieli,

Vice President, Natural Resources

National Cattlemen's Association

June 8, 1982

The National Cattlemen's Association is the national spokesman for all segments of the nation's beef cattle industry—including cattle breeders, producers and feeders. The NCA represents approximately 245,000 professional cattlemen throughout the country. Membership includes individual members as well as 51 affiliated state cattle associations and 20 affiliated national breed organizations.

Mr. Chairman and members of the committee:

I am Ronald A. Michieli, Vice President, Natural Resources, of the National Cattlemen's Association (NCA).

Members of the National Cattlemen's Association are concerned over how coal slurry pipelines, and how legislation granting pipeline companies the power of federal eminent domain, would affect several serious issues. These issues include water rights, water usage, transportation systems, and property rights.

Although bill S.1844 contains one provision (Sec. 6) intended to preserve state water rights and another provision (Sect. 4(c) (2)) to deny the exercise of the power of eminent domain for the acquisition of water rights (which are improvements over earlier versions of coal slurry legislation), several troublesome questions remain. The bill does not address the difficult issue of how to protect the water rights of one state from the unilateral action of another state that decides to allocate to coal slurry pipelines water resources that cross state boundaries.

Another troublesome issue is the apparent fact that these provisions would not give states the authority - the Constitutional right - to withdraw allocations of water to interstate pipelines should the states decide sometime in the future - for reasons of water shortage, a demonstrated greater need, or whatever - that such allocations should be withdrawn. (The Supreme Court has ruled that water allocated to interstate projects may not be preempted.)

This is just one instance of the difficulty of turning back the clock should a decision to construct a pipeline be found to be unwise sometime in the future. As witnesses have testified in previous hearings, the nature of the financing of pipeline construction involves long-term contracts with utilities which require payments to be made by the utilities -- meaning ultimately the consumers - whether or not the coal is continued to be supplied.

Bill S.1844 is based on the argument that coal slurry pipelines can transport coal cheaper than railroads thereby benefitting the public. We submit that this is open to question on two counts.

First, the argument ignores the fact that railroads are common carriers. Railroads cannot carry only the most profitable traffic. It is pertinent, I think, to remind this committee that the Congress has committed considerable taxpayers' funds to try to keep rail systems operational in the U. S. Is a coal slurry pipeline which carries over one commodity really cheaper if it helps destroy the railroads or increases federal expenditures on aid to help the railroads survive?

Secondly, the economics of coal slurry pipelines is predicated on the use of "cheap" water for transport. Other liquids could be used in pipelines to transport coal, but pipeline companies don't want to because other liquids cost too much. We raise the question of whether water is too valuable a resource, particularly in the arid or semi-arid areas where these pipelines are proposed to originate, to waste on transporting coal, especially since there are alternative modes of coal transportation.

Water is our most precious resource. There are numerous studies showing that our water tables are declining and we are facing shortages with severe impact upon agriculture and other uses. Is it really cheaper to transport coal by pipelines if it means higher food prices, higher costs to individual water consumers, and greater government expenditures on water conservation and water supply measures?

It is a bit ironic that at the same time we are talking about transporting water out of water-short areas via coal slurry pipelines, proposals have been made that the federal goverment spend billions of dollars to transport water into water-short areas. A federal-state task force in January of this year released a draft report on the Ogallala aquifer of the Great Plains (which is drying up) saying that the shortest and cheapest proposed route to transport water to Kansas, Colorado, and Nebraska will cost at least $11.8 billion to construct and that the cheapest way to get water to Oklahoma, New Mexico, and Texas, high plains area, would cost at least $21 billion. Transporting water further west would, of course, cost even more.

The National Cattlemen's Association believes that water should not be used to transport coal at the expense of other uses or to the detriment of our ecosystems. (One way of doing this would be for the beneficiaries of this legislation to return the water to the point from which it was taken.)

The delegation of the power of eminent domain to private companies as proposed by this bill is also of great concern to us. Such a company would have only one goal: to construct a line as cheaply as as possible. A company would not be concerned about the economic health or the pursuit of happiness of the landowner. Such a company would be looking for the shortest, most technically feasible route. There is no incentive for such a company to consider the effect of the taking on future property uses or development, including agricultural uses. This bill ignores and abrogates the public interest involved in the effects of condemnation.

The question of the use of eminent domain for construction of coal slurry pipelines should be left to the individual states to decide. The states should be allowed to consider the public needs and welfare of its own citizens and to protect those interests with suitable conditions on any delegation of eminent domain power.

This legislation involves a lot more than just another form of transporting a certain product. It has far-reaching implications and could lead to unitended disastrous results in the future.

We urge the defeat of this bill.

SAMPLE LETTER SENT TO MASS., N.H. AND R.I. DELEGATIONS

New England Electric

Guy W. Nichols
Chairman, President and
Chief Executive Officer

New England Electric System
25 Research Drive
Westborough, Massachusetts 01581
Tel. (617) 366-9011 TWX 710-390-0732
Cable: NEELECSYS WTBO

April 8, 1982

Senator Warren B. Rudman
4104 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Rudman:

This letter is to urge you to support passage of legislation providing the Federal power of eminent domain for coal slurry pipelines.

We are not aware of any proposals to build coal slurry pipelines into New England. However, construction of pipelines from the coal fields of western Pennsylvania, West Virginia, and western Virginia to East Coast ports -- from which we move coal to Brayton Point and, soon, to Salem Harbor -- could be very helpful.

The railroads, on which we must depend because there is no alternative, now have great flexibility to increase rates and they have been exercising that option. Rail rates have increased more than 15% during the past year -- pushing up the delivered cost of coal and our customers' electric bills.

Competition from pipelines -- and possibly even the potential for such competition -- could be helpful in restraining rapid increases in rail rates.

Our objective in supporting this legislation is to make it possible for those who wish to build such pipelines to have a fair opportunity to compete with other modes of transportation, particularly the railroads.

Your support is urged for legislation that provides Federal eminent domain power and which is not encumbered by unnecessary restrictions that frustrate construction of pipelines.

Sincerely,

Guy W Nichols

Guy W. Nichols

GWN:lt

bc: C.Bagge, F.Webber, H.Keohane

[illegible]

PNM PUBLIC SERVICE COMPANY OF NEW MEXICO
ALVARADO SQUARE ALBUQUERQUE, NEW MEXICO 87158 0044

May 6, 1982

Senator James A. McClure
Chairman, Energy and Natural
Resources Committee
3121 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

Your committee is now considering S.1844 legislation which would authorize the use of Federal Eminent Domain for coal slurry pipelines.

I want to emphasize my ~~support~~ for this legislation. As the utility industry increasingly uses coal as a primary fuel source, the rising costs of coal transport have a major impact on utility costs and the bills paid by our customers. I believe coal slurry pipelines are an important step in keeping those costs under control. The increases in rail transportation for coal, particularly in the aftermath of rail deregulation legislation, are enormous and coal slurry pipelines will provide competition that is essential to restrain these cost increases.

We know you are aware of the economic and environmental benefits of coal pipelines.. We hope you also understand that the future economic health of the utility industry is directly related to the use of coal pipeline technology. For this reason, we urge your committee to act promptly and favorably on S.1844.

Sincerely,

JDGeist

J. D. Geist
President

JDG:rdr

cc: Senator Pete V. Domenici
Ms. Lin Katz (EEI)

MAY 20 1982

PSI

Pipeline Systems Incorporated
61 Avenida de Orinda
Orinda, California 94563
Ph: 415-254-4420
TWX: 910-481-3601

May 13, 1982

ENERGY AND NATURAL RESOURCES
RECEIVED
MAY 21 1982
WASHINGTON, D. C. 20510

Senator James A. McClure
Chairman, Senate Energy and Natural
Resources Committee
253 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator McClure:

I understand that during the hearings on May 10 for S1844, the Coal Distribution and Utilization Act, that some questions were voiced about alternatives to the use of water in a coal pipeline. I have been doing work in the use of other liquids, primarily methanol, as the carrier in a slurry pipeline and offer the attached statement for inclusion in the record of your hearings. I hope it is of some assistance to you and your committee.

Yours very truly,

Thomas C. Aude

TCA/ah

Attachment

cc: Committee Members w/attachment

Statement of Thomas C. Aude,
Principal, Pipeline Systems Incorporated

My name is Thomas C. Aude. I am co-owner of Pipeline Systems Incorporated, an engineering company specializing in evaluation and design of slurry pipelines. My associates and I have worked professionally in this field for nearly twenty years. My partner and I were deeply involved in the Black Mesa coal pipeline project, particularly in its conceptual design as well as most of the long distance slurry pipelines built since 1964.

As a result of that experience, as well as experience from many economic feasibility studies, I am a firm believer in slurry pipelines as a modern way to transport large volumes of solid materials.

My comments are directed toward use of methanol as the liquid phase in a coal slurry pipeline, since I understand that that possibility has been questioned by the committee.

Water is, of course, the conventional and proven liquid phase in slurry pipeline applications. The water acts as the carrying medium and the transportation costs are allocated to the solids being transported. Many workers in the field have suggested substituting another liquid for water, one that would share in the transportation costs. Some of the proposed liquids are crude oil, CO_2, and methanol. Although use of slurries with these liquids appears technically feasible, those slurries should be viewed as in the next generation.

My associates and I have been involved for nearly three years in laboratory, technical and economic evaluations of coal/methanol slurry pipelines. Our most recent assignment was from W. R. Grace under a grant from the department of energy (DE-FG01-80RA 50313). Our report of the past year's work has just been completed and will become public information when the overall study report is issued. We evaluated transportation of coal in 5,000 tons per day of methanol. The overall study, performed under the direction of Energy Transition Corporation, includes technical, environmental, and economic aspects of making methanol from coal.

Over the past decade there has been a good deal of discussion about transportation of coal in methanol. This discussion does not appear to have been supported by much real technical evaluation of the concept. When we started work in the field, we spent considerable initial effort to sort through the literature and reach a conviction about the attributes of coal/methanol slurries.

In order to focus my remarks and hopefully give a capsule summary of coal/methanol slurry as it relates to the committee's activities on S1844, I will use a question and answer format.

Q. What is coal/methanol slurry?

A. A coal/methanol slurry is similar to a conventional coal/water slurry except the liquid phase is methanol rather than water. In each case the ratio of liquid to solid is about 1:1, that is, about one ton of coal in one ton of liquid.

Q. When would coal/methanol slurry be considered?

A. A coal/methanol slurry would be considered as the basis for a pipeline when a need exists to transport approximately equal and relatively large tonnages of coal and methanol from points of production to points of use when both commodities must move long distances over parallel routes. Similarly, crude oil or CO_2 would be considered where long parallel transportation requirements exist.

Q. Is it technically feasible to slurry coal with methanol?

A. Yes, a properly designed slurry of coal in methanol is feasible for cross-country pipeline transportation, although some test work is necessary to define certain elements of the system.

Q. Is methanol a technically superior liquid for preparation of coal slurry?

A. No. Due to interaction between the coal and methanol, the slurry is somewhat less fluid under comparable conditions than a coal/water slurry, although still satisfactory.

Q. How much water would be saved by using a methanol/coal slurry?

A. None. On the contrary, up to 9.5 times as much water would be used for coal/methanol slurry, that is, around 9.5 tons of water is required to produce the methanol to carry one ton of coal. Use of air cooling for process cooling would reduce water consumption to around four tons per ton of coal. It should be noted that on the order of one ton of water is required to provide hydrogen for the conversion of coal to methanol. In summary, the practical minimum amount of water needed to make the one ton of methanol needed to transport one ton of coal is about four times the amount of water used in a coal/water slurry and in the latter case the water is available for other beneficial uses at the end of the pipeline.

Q. Is the concept of methanol/coal slurry technically proven?

A. No. However, the developmental requirements appear to be straight forward. A methanol system would require one to two years of development whereas coal/water slurry technology is commercially proven now.

Q. Are there environmental problems with methanol/coal slurry pipelines?

A. No more than with a crude or products pipeline. The mixture would, of course, be more hazardous than a coal/water slurry.

Q. Are there existing large volume markets for the methanol?

A. No, not at this time. We understand the potential short term market is to replace oil or gas as boiler fuel and in the longer term as motor fuel. Those markets do not now exist. It follows that methanol production capacity, regardless of the location, does not currently exist in the volumes necessary for a coal/methanol pipeline.

Q. Will mixing coal with methanol reduce the quality of the methanol?

A. Apparently not, although some effort will be required to remove the fine coal and its inherent moisture from the methanol. We are more concerned at this time about handling the coal after separation from methanol. It will either be bone dry and very dusty or wet with methanol and requiring closed storage. In either case, some new equipment and procedures will have to be developed to store and handle the coal.

Q. What about advanced technologies that would allow use of less methanol (or water)?

A. Our studies have indicated that although high solids loadings are achievable, they do not appear economically attractive for long distance transportation.

Q. Is coal/methanol slurry pipeline transportation economically attractive?

A. Yes, assuming there is a need to transport large volumes, say over one million tons per year, of methanol and coal over a parallel and relatively long route, say over 100 miles, it is less expensive to transport a coal/methanol slurry than to transport a coal/water slurry and methanol separately.

Q. Is legislation such as S1844 necessary for coal/methanol slurry pipelines?

A. Yes, a coal/methanol slurry pipeline has the same problem of right-of-way acquisition as a coal/water slurry pipeline. In fact, the methanol transportation requirement would give railroads further incentive to block competition by slurry pipelines so they could acquire the methanol transportation business.

In closing, I urge passage of S1844 "The Coal Distribution and Utilization Act of 1981" as necessary for slurry pipelines to compete in the high volume coal transportation business. The legislation appears broad enough to cover coal/methanol as well as coal/water slurry. Finally, coal slurry pipelines are the appropriate economic, environmental and technical choice for some coal transportation requirements. Just as trucks, railroads, and pipelines have their appropriate use in transporting petroleum products, depending on the distance and volume transported, slurry pipelines have their appropriate role in transportation of large tonnages of coal over long distances. Our country seems to be reawakening to the virtues of free competition as a self-regulating method of achieving a viable energy supply and a healthy economy. The proven technological, environmental and economical soundness of coal slurry pipelines argues for removal of any artifical or political restraints on their application to the nation's transportation needs.

PUBLIC
SERVICE
INDIANA

Hugh A. Barker
Chairman and
Chief Executive Officer

May 4, 1982

Honorable James McClure
United States Senate
3121 Dirksen Office Building
Washington, D.C. 20510

Dear Senator McClure:

I would like to advise you of Public Service Indiana's support of S. 1844. This legislation, which provides federal eminent domain for coal slurry pipelines, is extremely important to consumers.

Coal pipelines could provide an economic alternative for transporting coal, as they would create competition in coal hauling. This legislation would be a step toward holding the line on coal - transportation costs and electric rates.

I understand Marshall McDonald, chief executive officer of Florida Power and Light Company, will soon testify before your Energy and Natural Resources Committee, and he will more completely outline the need for this legislation. I urge your support and expedient committee consideration of S. 1844.

Sincerely,

Hugh A. Barker

HAB:gm

cc: Lin Katz (EEI)

1000 East Main Street, Plainfield, Indiana 46168 317 .. 838 . 1242

2800 RepublicBank Dallas Building, Dallas, Texas 75201 • (214) 655-2700

May 4, 1982

Senator James A. McClure
Chairman, Senate Energy and
  Natural Resources Committee
3121 Dirksen Senate Building
Washington, D.C. 20510

Attention: Gary Ellsworth

Dear Senator McClure:

A hearing on Senate Bill S.1844, giving interstate coal slurry pipelines federal eminent domain authority, is scheduled before your committee on May 10. The Pipe Line Contractors Association fully supports this legislation because of its immediate effect on the pipeline construction industry, and its long-term beneficial effect on consumers, the environment, the coal industry, and the free-enterprise system.

The Pipe Line Contractors Association has been active in the pipeline construction industry for the last 35 years. The Association is composed of 67 mainline cross-country pipeline contractors who work in every state and perform ninety (90%) percent of all the cross-country pipeline work done in the United States.

The contractor members of this Association build pipelines transporting coal, gas, oil, water, or other transportable materials, vapors or liquids. At a time when this country is so dependent on foreign energy sources, we feel legislation which will help alleviate this dependency is in the national interest. In this respect, S.1844 will stimulate competition between pipeline carriers and the railroads, and provide a cheaper and more abundant energy source. Monopolies will not be perpetuated and individual incentives will be enhanced by the private sector without the need for federal subsidies, thus reaffirming a fundamental American concept, the free-enterprise system.

The construction of the proposed slurry lines, will of course, have a significant effect on our members. We expect many of our contractors to bid and perform the actual construction of the pipelines. The construction means many additional jobs, not only for our contractor members, and their employees, but also for the companies that supply the steel pipe, equipment, material, supplies, and other services.

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E. W. Crowe, *1st Vice President*
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The railroads have dominated the coal transportation industry, carrying two-thirds (2/3) of all coal produced in the United States, while concomitantly blocking legislation to grant coal slurry pipelines federal eminent domain authority to cross competing railroad tracks and other properties. Moreover, transportation costs can exceed fifty (50%) percent of the total delivered price of a ton of coal, and the cost is escalating. This cost factor presents a major impediment to conversion from petroleum as a primary energy source. Some utilities, because of the rising cost in transporting coal, have found it more economical to import coal from South Africa and Australia.

High railroad rates contributed to the construction of the first coal slurry pipeline in 1957 from Cadiz, Ohio to Cleveland. This line was taken out of service in 1963 when the railroads developed unit train operations and reduced the coal rates. Coal slurry pipelines offer a real competitive alternative. Incidentally, the Black Mesa Pipeline System is the only slurry line presently in operation. This line carries approximately 5 million tons of coal per year, 273 miles, from Arizona to the Mohave Power Generating Plant in Nevada. For your information, this line was built by a former member of this Association.

The railroads contend that coal slurry pipelines would cause economic problems and unemployment for some railroad companies and employees. This contention is false based on recent coal production projections. Consumption of U.S. coal is expected to more than double on the domestic market between 1980 and 2000. The Department of Energy projects domestic coal consumption in 1990 to be between 1.3 and 1.6 billion tons. If all the proposed coal slurry pipelines are operational by 1990 they will carry only about ten (10%) percent of the nation's requirements, hardly an amount to produce the catastrophic effects railroad doomsayers predict. The effect will more likely be lower rates for consumers in a more competitive industry.

Unlike the railroads, a coal slurry pipeline is almost entirely underground -- a silent, clean, invisible carrier. Environmental disturbance is minimal, and pipeline contractors through experience and expertise return the land to its former or better condition. Within a very short time there is little evidence that below the surface lies a pipeline silently and continually carrying the coal slurry to its destination. Little needs to be said about the environmental impact of the diesel locomotive, or the coal dust emissions from open hopper cars.

In a long distance, high volume market, coal slurry pipelines are more economical than the railroads. Railroad opposition to eminent domain legislation is misplaced in light of the fact that a number of railroads had access to federal eminent domain when they built their lines years ago.

In your consideration of this legislation, please keep in mind that a competitive system will pass far more benefits to the consumers of this country through increased efficiencies and lower prices. The St. Louis Post-Dispatch said it poignantly: "Congress ought to get along with the job of giving coal pipelines the right of eminent domain so this promising new technology can demonstrate what it can do."

Sincerely yours,

Hailey A Roberts

Hailey A. Roberts

HAR/k
cc: ACCT
Senate Energy and Natural Resources Committee
Pipe Line Contractors Association Board of Directors
Pipe Line Industry Advancement Fund Board of Trustees

P RT OF SEATTLE
P.O. BOX 1209 SEATTLE, WASHINGTON 98111

June 7, 1982

The Honorable James A. McClure
Chairman, Senate Energy and
Natural Resources Committee
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

I am writing to express my strong support of Senate Bill 1844, the "Coal Distribution and Utilization Act of 1981." My particular interest in this Bill stems from my conviction that coal pipeline technologies are essential to increasing coal exports from the United States to the Pacific Rim Nations. My knowledge of these issues is based on a lifetime on the waterfront, including 40 years as a licensed Ship's Master and almost 20 years as a Commissioner of the Port of Seattle. For the economic, strategic, and technological reasons explained in this letter, I urge prompt enactment of Senate Bill 1844.

The worldwide significance of United States coal reserves is well known and needs no repeating. In addition, the world is turning back to coal from oil. The major Pacific Rim energy importers (Japan, Korea and Taiwan) used 13.9 million tons of steam coal in 1979 and are projected to use 80.5 million tons of steam coal in 1990—an increase of 480% in ten years. One forecast I have seen for total Pacific Rim thermal coal imports estimates 134 million tons in 1990. Much of this growth in imports is a result of the Pacific Rim Nations replacing costly and interruptable oil supplies with coal.

There are important economic and geopolitical reasons for the United States to become a major coal exporter. Projected 1990 exports from the West Coast could easily represent a $4 billion change in our balance of payments with our Pacific Rim trading partners. We must also keep in mind the strategic advantage of being an energy supplier. Events of the past decade involving world oil supplies and our recent concerns over the growing dependency of Europe on Soviet energy supplies have, I hope, taught us a lesson.

Having established our reserves and the benefits of exporting, we must look to the competitive realities of world trade. Coal is, in fact, a low value product at the mine head. Much of the delivered price of export coal goes for transportation. Our existing competition in coal exports comes from South Africa, Australia and Poland. They suffer from political instability and/or labor strikes which on occasion interrupt deliveries, a major concern for importers. Other new producers fighting for market shares are

China, Columbia and Canada. Canada, in particular, is already undertaking feasibility studies on two coal pipelines for West Coast coal export in direct competition with my region of the country. Competition from interstate coal pipelines can operate to moderate the transporation costs of our steam coal and assist the U.S. to compete in foreign coal markets.

Waterborne transportation costs can be lowered by using larger vessels, especially those over 100,000 dead weight tons. Such vessels require water depths of 50' or more.

Marine terminals must therefore be sited where there is adequate water depth, adequate shoreland, and adequate land transportation routes for the coal. Coal slurry pipelines can facilitate these requirements. First, an export terminal served by a slurry pipeline can be built on a smaller site than one served by rail. Secondly, since a new pipeline would be built as part of a project, slurry served terminals are not restricted to those sites already served by particular railroad lines. Instead, sites can be selected where water access is excellent and the pipeline, once completed, does not impact the populated areas along our coast as do large unit trains. Freeing terminal siting from existing rail routes best accomplishes our coastal zone management goals for proper utilization of our coastline.

I do want to stress that we in the Pacific Northwest see Puget Sound as a prime location for coal export terminals. We have numerous potential sites with the water depths of 100' within a 100 yards of shore and a minimum 120' of depth on our passage to the Pacific. Our Vessel Traffic Control System, operated by the U.S. Coast Guard, gives us the safest, deepest navigation access. We have the potential to export millions of tons of coal per year with absolutely no navigation dredging required, a claim few can make today. But coal slurry pipelines must be allowed for us to be competitive.

Senate Bill 1844 provides slurry pipelines with only the same federal support provided other transportation technologies. A newly released technical memorandum of the Office of Technology Assessment entitled "Coal Exports and Port Development, Second Edition" states "The issue of emminent domain contines to plague the slurry advocates. In order to transfer coal by slurry from interior points, the slurry lines must cross or run parallel to property owned by railroad companies, the slurry lines major competitors. Thus far, the Railroad Lobby Groups have been able to block attempts to grant permission to slurry interests to cross railroad property. Unless the right of eminent domain is granted, it is unlikely that interior slurry lines will be constructed. This is why the proposals for exporting coal by slurry rely on rail and/or barge for delivery to the slurry plant." Senate Bill 1844 provides the eminent domain right needed for coal slurry pipelines but only after a determination of national interest. Further, Senate Bill 1844 explicitly protects each state's water resources.

The Honorable James A. McClure
June 7, 1982
Page 3

Mr. Chairman there is no doubt that enactment of Senate Bill 1844 will greatly enhance U.S. coat export capability. This legislation can be the key to domestic energy independence as well as elevating the U.S.'s position in the world coal export market. I respectfully solicit your support of S.1844 and your leadership in guiding this important legislation through the Senate.

Sincerely,

Merle Adlum
Secretary
Port of Seattle Commission

JDD/D/11

SLEMCO
SOUTHWEST LOUISIANA ELECTRIC MEMBERSHIP CORPORATION
3420 HIGHWAY 167 N. ● LAFAYETTE, LA 70507-8399 ● TELEPHONE 318—[illegible]-5119
P.O. DRAWER 90866-C ● LAFAYETTE, LA 70509-0866

April 7, 1982

Chairman
Energy and Natural Resources Committee
Senate of the United States
Washington, D. C.

Dear Sir:

Competition is a matter of extreme importance to us at SLEMCO and has been the American way since the founding of this great nation.

This year under consideration in the houses of Congress is H.R.4230, "The Coal Pipeline Act of 1981" and the companion bill S.1844, "The Coal Distribution and Utilization Act of 1981". The passage of these two bills will provide the competition in the long-distance, overland transportation of coal that is desperately needed.

SLEMCO fully supports the passage of these two bills because they will have a direct effect upon the cost of electricity to the nation's electrical consumers.

Please support the passage of these bills.

With best wishes, I am

Sincerely,

H. J. Kesel
General Manager

HJK:dlg

Attachment

SLEMCO . . . *Building Louisiana with Lower Rates and Service Reliability*

NATIONAL ENERGY WATCH

SLEMCO
SOUTHWEST LOUISIANA ELECTRIC MEMBERSHIP CORPORATION
3400 HIGHWAY 167 N. ● LAFAYETTE, LA 70507-2599 ● TELEPHONE 318—[illegible]
P.O. DRAWER 90866-C ● LAFAYETTE, LA 70509-0866

RESOLUTION

WHEREAS, coal is the United States' most abundant energy resource, and the use of coal as a primary source of energy is growing, and

WHEREAS, with nearly one-third of the entire globe's known coal reserves, the United States can become more energy self-sufficient and less dependent on foreign oil by utilizing its coal, and

WHEREAS, a significant part of the price of coal is the cost of transporting it from mines to users, and

WHEREAS, railroads transport sixty-five (65) percent of all coal mined in this country and they face little competition for the growing coal market and shipping rates reflect the railroad's dominant position in the transportation sector, and

WHEREAS, Coal Slurry Pipelines can provide the necessary competition and lower transportation rates that will help keep coal consumers' cost reasonable and because eighty (80) percent of coal in the United States is used by electric utilities, such as Cajun Electric Power Cooperative, all consumers of electricity can benefit.

NOW, THEREFORE, BE IT RESOLVED, SLEMCO supports H.R. 4230, "The Coal Pipeline Act of 1981" and the companion bill, S. 1844, "The Coal Distribution and Utilization Act of 1981".

BE IT FURTHER RESOLVED, that a copy of this resolution be mailed to the Louisiana Congressional Delegation, the House Interior Committee, the House Public Works and Transportation Committee, the Senate Energy and Natural Resources Committee and the Alliance for Coal and Competitive Transportation.

I, CLARK GRAY, hereby certify that the foregoing is a true and correct copy of resolution adopted at the regular meeting of the Board of Directors of Southwest Louisiana Electric Membership Corporation held on April 1, 1982.

Clark Gray
Clark Gray, Secretary

Southern California Edison Company

SCE

P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

HOWARD P. ALLEN
PRESIDENT

TELEPHONE
213-572-2777

May 7, 1982

Honorable James A. McClure, Chairman
Energy and Natural Resources Committee
United States Senate
Washington, D. C. 20510

Honorable Henry M. Jackson
Ranking Minority Member
Energy and Natural Resources Committee
United States Senate
Washington, D. C. 20510

Honorable Chairman and Ranking Minority Member:

Southern California Edison Company (Edison) is pleased to offer this letter of support for coal slurry pipelines. As a 12-year receiver of coal slurry pipeline deliveries and a probable future user of western coal, Edison has supported, and will continue to support, legislation that will allow coal slurry pipelines the federal right of eminent domain.

Edison is an investor-owned California electric utility engaged in the generation, transmission, and distribution of essential electric service within a 50,000 square mile area comprising central and southern California. This area includes some 800 cities and communities with a population of more than 8,000,000 people, and includes hospitals, agriculture, and defense installations. Approximately 12 percent of Edison's 15,592 megawatts of operating capacity is comprised of interests in coal-fired generating stations. One of these generation stations, Mohave, located near Laughlin, Nevada, has been served by the Black Mesa coal slurry pipeline from its initial operation in August 1970.

The Mohave plant is a 1,510 MW base-loaded, coal-fired generating station. It is a major generating resource for the southwestern United States, providing electric service to areas within the states of Arizona, Nevada, and California.

The Black Mesa slurry pipeline, capable of transporting in excess of five million tons of coal annually, delivers approximately 50 percent coal and water (by weight) through a 273-mile coal slurry pipeline. This pipeline runs from the Black Mesa Coal Field in northeastern Arizona to the Mohave plant in southern Nevada and is the world's largest coal slurry transportation system. This pipeline is about three times the length of the nation's first coal slurry pipeline located in Ohio.

Edison analyzed the coal transportation options available during the initial planning phases of the Mohave Generating Station. These options consisted of railroad delivery and slurry pipeline delivery. The feasibility of new rail line segments between the coal source and the plant site to connect with the existing mainline railroad was examined. Comparisons of the two delivery systems revealed that it would cost $1.50 per ton for delivery by slurry pipeline as opposed to $2.15 per ton for coal delivery by rail. The slurry pipeline was selected as the more attractive option. During the 12 years in which Mohave has been served by the Black Mesa Pipeline, a period which has afforded us a 99 percent availability, the rate has increased to $4.00 per ton or 8.5 percent annually.

In comparison, current rail rates being reviewed for future projects indicate rates to Edison by rail transportation would be in the range of $10 to $12 per ton--an increase of at least 14.2 percent annually. A primary underlying reason for this increase is the effects of labor and other variable costs on both transportation modes. Coal slurry pipelines are 25-30 percent variable cost intensive, in comparison to 75-85 percent for railroads.

As pointed out in previous Congressional testimony regarding coal transportation, the electric utility industry is the nation's largest coal user and is deeply concerned that increasing transportation costs will sharply drive up electricity consumer rates while concurrently impeding the development of coal as one of our nation's leading resources. We at Edison believe that coal can be used in an environmentally-acceptable manner and can serve as one of the utilities' key energy supplies, the full employment of which offers the fastest route to our nation's energy independence. Removal of burdensome and needless regulations governing the production, transportation, and utilization of coal and coal-based synthetic fuels industry is fundamental to the achievement of coal's full potential as a leading primary fuels source.

Rail freight costs are often a significant share of the delivered price of coal, varying widely, depending upon factors such as distance, value of coal, and alternative transportation modes available. In ever increasing instances, appropriate coal sources are located farther away from locations of actual use; thus, transportation costs become increasingly important. Coal slurry pipelines, in our view, provide the necessary and desirable competition essential to obtain reasonable transportation costs.

In addition to benefits derived from costs associated with coal slurry pipelines, Edison believes coal pipelines offer significant environmental advantages over other modes of transportation. Coal pipelines are underground and, thus, out of sight and noiseless. As a result, such pipelines are essentially environmentally benign. Further, coal pipelines are immune from the effects of severe weather conditions and surface accidents.

Edison endorses the concept of coal slurry pipelines and believes this proven technology to be an important step toward utilizing our national resources in an environmentally sound manner, while supplying the competition necessary to maintain acceptable transportation costs, thus providing substantive benefits to our customers.

In summary, the Southern California Edison Company supports S.1844, the Coal Distribution and Utilization Act, as an appropriate vehicle to achieve a balanced transportation system for coal and advocates enactment of favorable coal slurry pipeline legislation.

Sincerely,

Office of the General President—Martin J. Ward

General Office File Reference:

AFL-CIO-CLC

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

Composed of journeymen and
apprentices who have jurisdiction
over every branch of the plumbing
and pipe fitting industry

United Association Building, 901 Massachusetts Ave., N.W., Washington, D.C. 20001 Phone (202) 628-5823

May 5, 1982

Honorable James A. McClure
Chairman, Senate Committee on
Energy and Natural Resources
3104 Dirksen Building
Washington, D.C. 20510

Dear Chairman McClure:

On behalf of the 350,000-member United Association of Plumbers and Pipefitters (AFL-CIO), I want to thank you for scheduling a hearing on S.1844, the Coal Pipeline Act. It is my understanding that President Robert A. Georgine of the Building and Construction Trades Department (AFL-CIO) will testify and represent the views of the 15 international unions that make up the Department, including the United Association. However, I want to take this opportunity to submit this letter to you and the members of the Committee setting forth briefly the reasons why the United Association supports S.1844 and urges your Committee to act favorably on this measure.

The Committee should know that roughly half of our journeymen and apprentice members are pipefitters, highly skilled in piping installations of a wide variety on commercial and large industrial projects. On a nuclear power plant, for example, our pipefitter-members work more than one-quarter of the total manhours worked on construction, well in excess of the manhours for any of the other crafts.

On pipeline construction, the greatest number of manhours of work would go to the Laborers with the Pipefitters and Operating Engineers next, followed by the Teamsters and other trades.

The proposed 1,300 mile ETSI pipeline, now closest to the construction stage after years of struggle, estimates 3-4 years of work. They expect to employ nearly 7,000 people, including 3,255 laborers, 2,100 pipefitters, the same number of operating engineers, 840 teamsters, 654 millwrights, 520 electricians, 340 carpenters and others.

Industry sources indicate that at least eight other pipelines are presently in the planning stage, so that those manpower figures would be multiplied considerably if barriers to construction were removed. Furthermore, those figures do not include jobs that would be created in the industries supplying the materials for the

MARTIN J. WARD
General President

JOSEPH A. WALSH
General Secretary-Treasurer

MARVIN J. BOEDE
Assistant General President

CHARLES J. HABIG
Asst. General Secretary-Treasurer

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Honorable James A. McClure
May 5, 1982

projects or the many thousands of jobs created by powerplant construction and expansion and development of port facilities that would result from a thriving coal pipeline industry. Nor do those figures include increases in jobs for coalminers. (A 1980 study of just one proposed pipeline, the 1,500 mile Coalstream pipeline from Illinois and Appalachia to Florida, concludes that 5,200 new jobs would be created for coalminers.)

With unemployment in the construction industry near the 18 percent figure and with what appears to be a virtual collapse of the synthetic fuels industry, these job figures become even more significant as a factor in the legislation you have before you.

I call these employment statistics to your attention because the railroad industry, in its anxiety to hold on to its near-monopoly in coal transportation often sounds the alarm about supposed job losses in the industry. They certainly do not talk about job gains in construction and in related supply industries or in coal mines or in the utility and other industries that will be able to expand production by using more readily available fuel at lower cost.

Your own Office of Technology Assessment, in its March, 1978, report pointed out that--and I quote--"If a substantial pipelines industry were to develop, enough people would probably be employed in construction and supplying industries to offset cumulative employment impacts in the rail industry for the rest of the century".

Mr. Chairman, if we come anywhere near our goal of doubling coal production by 1990, it is improbable that the railroads can do the job alone. And, since, the most optimistic estimates see pipelines transporting only 20 percent of the coal, it is clear that railroads would still experience enormous increases in revenue and employment.

Yes, pipeline construction will generate jobs for construction workers. But a green light for coal pipelines does not mean a loss of jobs for railroad workers. In point of fact, if we allow the railroads to continue their monopolistic practices in hauling coal, utilities and other users will simply not change their ways and convert from the scarcer fuels to coal. Furthermore, some communities have already said that it is more economical for them to import coal rather than rely on domestically mined coal for which rail transportation equals or exceeds the cost of the coal itself. (Since 1973, in fact, the United States, despite possessing far more recoverable coal reserves than any other nation, has imported over 9 million tons of coal.)

United Association
of Journeymen and Apprentices of the
Plumbing and Pipe Fitting Industry
of the United States and Canada

Page 3
Honorable James A. McClure
May 5, 1982

While these manpower considerations are relevant to your work on S.1844 and admitting that we would welcome the job opportunities pipeline construction would provide for our members, I truly believe there is a more compelling reason for passing this eminent domain legislation.

We need to remove the impediments to the use of this technology because coal pipelines are so clearly in the national interest. The more we depend upon coal (and the less we depend upon oil) the more we move toward energy independence and increased national security.

We have been close to this issue for many years and I have testified many times on both sides of Capitol Hill. I remain confident that Congress will ultimately reject raw obstructionism and give coal pipeline developers an opportunity to compete for coal transportation in the American marketplace.

Remember that coal pipelines are not looking for federal funds or loan guarantees or any other financial aid of any kind. They simply want to make reasonable use of the carefully controlled eminent domain process. And such use is consistent with public law, public policy and past practice.

We request prompt and favorable action on S.1844.

Sincerely yours,

Martin J Ward

Martin J. Ward
General President

vlj

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 5, 1982

T. JUSTIN MOORE, JR.
CHAIRMAN OF THE BOARD
AND
CHIEF EXECUTIVE OFFICER

The Honorable James A. McClure
Chairman
Energy & Natural Resource Committee
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

I would like to advise you of Virginia Electric and Power Company's strong interest in and support for S.1844.

As both Senators Byrd and Warner are aware, Vepco is interested in the possible development of a coal slurry pipeline to our coal-fired plants in central and eastern Virginia and to the port of Hampton Roads.

Vepco has carried out the nation's largest program to convert oil-fired generating plants to coal. We have already converted units with 1600 megawatts of generating capacity and have scheduled additional conversions of units with 900 megawatts of capacity. By the time this program is complete in 1986, the converted units will displace about 19 million barrels of imported oil. Our coal conversion program is making a significant and growing contribution to reducing America's over-dependence on foreign oil. In the years ahead, we expect coal to generate over 40 percent of our electricity supply.

But while the increased use of coal for electricity generation is clearly in the national interest, Vepco and other coal-burning utilities are being penalized by the sharp rises in coal freight rates.

As you know, transportation costs represent a large share of the total delivered cost of coal. Since the partial deregulation of railroads, Vepco's coal freight rates have increased over 21 percent and this trend shows no signs of abatement.

Under an unrestricted grant from Vepco, the Virginia Polytechnic Institute and State University has undertaken a preliminary study of a Virginia coal slurry pipeline which indicates that a pipeline would be technically feasible and would reduce coal transportation costs by substantial amounts. The study further shows that there is no problem with the availability of water required for a Virginia coal slurry pipeline.

By providing a competitive alternative to rail shipments, a slurry pipeline could provide significant benefits to Vepco customers in Virginia, North Carolina and West Virginia and help keep electric rates lower than they would otherwise be.

The development of coal slurry pipelines will not occur unless the pipelines are economically advantageous and meet established criteria for the protection of the environment. What is vital now is that the legal barriers that prevent pipeline development be removed. We urge that coal slurry pipelines be promptly granted the right of eminent domain.

Sincerely,

T. Justin Moore Jr.

T. Justin Moore, Jr.

Western Fuels Association, Inc.

KEN HOLUM — GENERAL MANAGER
730 JEFFERSON BUILDING
1225 19TH STREET, NW
WASHINGTON, DC 20036

OFFICE: 202-463-6580
TELECOPIER: 202-223-6790

May 5, 1982

Honorable James A. McClure
Chairman
Senate Committee on Energy and
Natural Resources
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Attention: Gary Ellsworth

Dear Mr. Chairman:

The future of coal as a fuel for electric utilities and other American industries is irrevocably linked to transportation systems which move it. These include the railroads, which haul more coal within the 48 contiguous states than any other mode; barges and ships using the inland and coastal waterways, coal slurry pipelines, and high voltage electric transmission lines which can move power from mine-mouth generating stations to the point of use.

Western Fuels Association, Inc., a not-for-profit organization of consumer-owned electric utilities for whom I speak, believes that all these modes must be used in order to meet the anticipated need for coal in the foreseeable future. Alternative sources of energy may well be perfected, in years to come, to meet a meaningful share of the nation's demand, but their impact is a long-way from being felt.

I will concede that there is controversy in the use of each of these modes. Conflicting needs for water affect consideration of two of the modes: states of the semi-arid West are concerned about substantial demands that coal pipelines might place on their limited supplies of water; inland waterways' absolute need for reliable levels of rivers to float their loaded barges must contend with a variety of conflicting uses of water, including agriculture and the generation of hydro-electric power through the dams of the Corps of Army Engineers and the Bureau of Reclamation.

As logical and efficient a means of transporting energy as is extra high voltage electric transmission ("moving coal by wire"), this mode, too, has opponents who fear the effects of magnetic fields on their crops and livestock in spite of the reassuring results of many studies. Networks of high voltage electrical lines will be expanded, but it is unlikely that they will provide the entire answer to the nation's needs.

Expanded use of the railroads has its opponents, too, because of the parade of unit trains through small cities and towns, dividing one side of town from the other for many lengthy periods every day; farmers and ranchers, aided and encouraged by environmentalist opponents of increased mining and use of coal, find reasons to oppose new trackage through farms and range lands.

This does not exclude the opposition to railroads' monopoly position in vast areas of the coal-producing sections of the country, a monopoly whose already great advantages to the railroad industry were enhanced by enactment of the Staggers Rail Act of 1980.

It is to protect our members and their electric customers from greatly increased costs for transportation of coal, with the inevitable greatly increased rates for electricity, that decided Western Fuels on a course of support for coal slurry pipelines -- specifically for support of the enactment of legislation giving the right of eminent domain under carefully controlled conditions to the builders and operators of slurry pipelines.

Who needs the railroads? We all need them and recognize that they must be profitable if they are to provide the service we need. But they should not be free to profiteer at the expense of everyone else.

We believe in competition. Little or none exists today in the railroad industry, and, to date, in its actions on proceedings stemming from the Staggers Act, the Interstate Commerce Commission has shown little interest in restraining the railroads' persistent and continuing drive toward ever higher charges for hauling coal. For these reasons, we strongly support S. 1844 and H.R. 4230. We recognize that there are differences between the bills, but we are confident that either -- or a compromise version of the two -- will undo the restraints which have been imposed by the railroad industry (already favored these many years by federal eminent domain powers) on a legitimate and proven mode of coal transportation.

The legislation being considered in different forms on both sides of Capitol Hill is needed. It does not give away any state powers over the appropriation and use of water within the individual states. Other arguments of railroad spokesmen against giving slurry pipeline companies the right of eminent domain are self-serving and largely spurious. Other spokesmen will go into detail on these matters, so I will not burden the Committee and its staff with repetitious language.

We urge the Committee to support S. 1844 this year. We cannot wait for another major energy crunch to start taking steps to shore up our energy supply system. And we cannot afford to let the railroads impose increasing burdens on the electricity users of our nation.

For the record, Western Fuels has 31 members serving cities and farms, homes and industries across a large part of the nation. The service areas extend across every state in the Mountain West to Puerto Rico, from the Canadian to the Mexican borders and from the Great Lakes to the Gulf of Mexico. Most are using coal to generate the electricity their customers and members need. The rest expect to be using coal in years to come. All are dependent, one way or another, on the railroads, and without competition in the transportation industry, there is unlikely to be any reasonable ceiling of tariffs.

Thank you for your attention and, hopefully, support.

Sincerely,

Kenneth Holum
General Manager

OB:bh

THE WESTERN COAL TRAFFIC LEAGUE
1224 Seventeenth Street, N.W.
Washington, D.C. 20036

(202) 659-1445

Officers

Joseph H. Shafer, Jr.
Central Power and Light Co.
President

Dean F. Stoll
Iowa Public Service Co.
Treasurer

Bobby L. Cox
Department of Public Utilities
Colorado Springs, Colorado
Secretary

Executive Board

Joseph H. Shafer, Jr.
Central Power and Light Co.
Corpus Christi, Texas

B.G. "Bev" Godec
Department of Public Utilities
Colorado Springs, Colorado

Robert A. Hewlett
Arizona Electric Power Coop.
Benson, Arizona

Dr. Bruce A. Melaas
Celanese Chemical Co. inc.
Dallas, Texas

Arthur von Rosenberg
City Public Service Board
San Antonio, Texas

Charles Reichert
Minnesota Power & Light Co.
Duluth, Minnesota

F.K. Smith
Utility Fuels, inc.
Houston, Texas

Staff Assistant

Peggy A. Hall

May 7, 1982

Senator James A. McClure
Chairman, Senate Committee on Energy
and Natural Resources
3104 Dirksen Building
Washington, D.C. 20510

Dear Senator McClure:

As President of the Western Coal Traffic League, I am writing to express the League's support for S. 1844, the Coal Distribution and Utilization Act of 1981. This bill is now pending before your Committee, and we urge that you do all you can to present the bill for consideration by the full Senate as soon as possible.

The League is an association of shippers and receivers of coal mined from areas west of the Mississippi River, and was formed in 1976. Its genesis coincided with a surge in the movement by many of the nation's utilities to substitute coal for oil and natural gas as their primary fuel for the generation of electrical power. As a Senator from the West, I am sure you are aware of the optimism with which these utilities viewed the prospects for the use of low-sulphur, high BTU Western coal as a means of arresting the spiraling cost of providing electricity for American industries and consumers.

Unfortunately, the expectations of utilities and industrial concerns that expended millions of dollars in coal conversion costs have not yet been realized. The primary reason lies in the fact that there is very little competition with or within the railroad industry with respect to Western coal transportation. Because of the virtual rail monopolies that exist in many coal transportation markets, there has been very little incentive for the carriers to keep Western coal rates down, and in fact, experience has proven that they have taken full advantage of the non-competitive situation to maximize profits on coal traffic. As a result, electric utility consumers have faced ever-rising energy costs, since the charges a utility must pay for coal transportation is passed through directly to the consumers in the form of fuel cost adjustments in their monthly bills for electricity. The rapidity with which utility coal rates were increased between 1976 and 1980 was a source of great concern for Congress in the course of its deliberations leading to the passage of the Staggers Rail Act of 1980.

In enacting the Staggers Act, Congress sought to present competition as the primary means through which railroad rates should be kept to reasonable levels and extensive federal regulation could be avoided. The League firmly believes in the principles and goals of the Staggers Act, and feels that the passage of the Coal Distribution and Utilization Act of 1981 is a necessary step in achieving these goals. Coal transportation via slurry pipelines would not only be economical in and of itself, but would introduce an element of competition into a market that is presently dominated by a few large carriers. The presence of slurry pipelines would encourage the nation's railroads to provide more efficient transportation services at a lower cost. The beneficiaries of such an effect would be utilities, coal consuming industries, consumers and the railroads themselves, since increased efficiency would by necessity lower their operating costs and thus improve their overall financial condition.

The League is aware of the concern of many Western legislators such as yourself with respect to the question of depletion of water resources. While we too share this concern, we believe that S. 1844 strikes a proper balance between the need for federal action to facilitate pipeline construction and operation and the rights of individual states to manage and protect their natural resources. By prohibiting the use of eminent domain authority to procure sources of water and requiring pipeline companies to obtain water permits under applicable state law prior to construction, S. 1844 ensures that increased competition in the coal transportation market will not be obtained at the expense of the needs of existing industries, which also must depend upon the continued availability of Western water.

America's vast coal reserves present a golden opportunity for the nation to free itself from the current over-dependence on foreign oil. If any coal program is to work, however, it must operate to enable utilities to utilize these reserves economically. To do this, the coal transportation market must be replete with free and open price competition, and Congress must make every effort to ensure that such a market condition is developed and continued. The League believes that the Coal Distribution and Utilization Act of 1981 is most definitely a step in the right direction. For this reason, we fully support the passage of S. 1844.

On behalf of Western coal shippers and the American consumers and industry they serve, we strongly urge you as Chairman to move S. 1844 through the Committee "mark-up" and reporting process as expeditiously as possible, bringing the bill before the full Senate for a vote at the earliest available date.

Sincerely,

Joseph H. Shafer, Jr.
President, Western Coal Traffic League

cc: Members, Senate Energy Committee

ENERGY AND NATURAL RESOURCES
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JUN 7 1982
WASHINGTON, D.C. 20510

JUN 7 1982

ASSOCIATION OF AMERICAN RAILROADS

Richard E. Briggs
Executive Vice President

June 2, 1982

The Honorable James McClure
Chairman
Committee on Energy and Natural Resources
United States Senate
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman McClure:

In the course of my appearance before your Committee on May 10th, a question was raised by Senator Johnston with regard to the increase in transportation rates from the Powder River Basin to San Antonio, Texas.

In reviewing the transcript of that session, I believe my response would have been more complete if I had corrected a mistaken assumption which underlay the question.

The coal rate to San Antonio has not risen 400 percent. San Antonio officials and advocates of coal slurry pipelines have made this allegation on many occasions, but it is erroneous. Here are the facts as reported by the Burlington Northern, which was a party to these discussions.

To begin, the $7.90 figure stated by Ms. Cockrell and repeated incessantly by slurry proponents and the press in San Antonio was a quote provided when San Antonio first began to consider a new plant to burn coal rather than another fuel. It was stated at a time when no other coal was moving in volume to that part of the country, and the rate clearly did not include the cost of capital required to rebuild the line. That quote subsequently was withdrawn. Later, and prior to the date that San Antonio signed its contract for coal, our quote was increased to $11.09, subject to escalation. This was on May 2, 1974, 20 days before San Antonio executed a long-term coal contract. The amount was acknowledged by City Public Service Board officials in local news articles and it was claimed that the deal was a "good one."

The current rate is $26.16 per ton, an escalation of 139 percent since the movements began -- certainly a far cry from the 400 percent alleged by Ms. Cockrell. As a matter of fact, the lady's arithmetic is sadly lacking because, even if her $7.90 figure were correct, the escalation would still only be 231 percent.

I hope you will permit me to correct the record in this regard.

Sincerely,

Richard E. Briggs
Richard E. Briggs

3829 Orleans Road
Birmingham, Alabama 35243
June 1, 1982

Senate Energy and Natural Resources Committee
3104 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Members:

I would sincerely appreciate your support of S. 1844, which would result in a major step forward in technology and economy for the transportation of our most abundant resource, coal. The right of eminent domain must be afforded to the coal slurry pipeline concept in order for equitable treatment to result and a vital energy need to be met now and in the future.

Sincerely,

Ben Gould

Ben Gould

B C
PO BOX 551
LITTLE ROCK AR 72203

Western Union Mailgram

4-0246678124 05/04/82 ICS IPMBNGZ CSP WSHB
5013714284 MGM TDBN LITTLE ROCK AR 168 05-04 1207P EST

MISS LIN KATZ, EDISON ELECTRIC INSTITUTE
1111 19TH ST NORTHWEST
WASHINGTON DC 20036

THE FOLLOWING MESSAGE WAS SENT TO THE HONORABLE JAMES A MCCLURE DEAR MR CHAIRMAN WE WOULD LIKE TO LET YOU KNOW THAT WE ARE VERY MUCH IN FAVOR OF THE COAL SLURRY PIPELINE LEGISLATION WHICH IS NOW BEING CONSIDERED BY YOUR COMMITTEE AS YOU KNOW MANY UTILITIES ARE CAPTIVE TO THE RAILROADS FOR THE SHIPMENT OF COAL THE COAL SLURRY PIPELINE WOULD PROVIDE A VERY NEEDED FORM OF TRANSPORTATION FOR COAL, THUS PROVIDING COMPETITION TO KEEP COSTS DOWN WHICH WOULD INTURN HELP THE CONSUMERS OF ELECTRICITY TAKE THEIR UTILITY BILLS DOWN

AP&L IS ONE OF THE ELECTRIC UTILITIES PRESENTLY CONSIDERING THE USE OF A COAL SLURRY PIPELINE BEING PLANNED BY ENERGY TRANSPORTATION SYSTEMS INC OUR EVALUATION HAS SHOWN THAT IN THE FUTURE THERE WILL BE A GROWING NEED FOR SUCH PIPELINES THROUGHOUT THE COUNTRY SINCERELY

JERRY L MAULDEN PRESIDENT AND CHIEF EXECUTIVE OFFICER ARKANSAS POWER AND LIGHT COMPANY
PO BOX 551
LITTLE ROCK AR 72203

12:09 EST

MGMCOMP

Statement of
Associated Builders and Contractors

Mr. Chairman and members of the Committee, Associated Builders and Contractors, Inc. (ABC) supports the enactment of S. 1844, the Coal Distribution and Utilization Act of 1981 and encourages the Committee to report S. 1844 for full Senate consideration at the earliest possible date.

Associated Builders and Contractors, Inc. is a national construction industry trade association representing nearly 17,000 construction firms nationwide. The members of ABC believe in the "merit" shop form of construction, a concept that calls for open competitive bidding with the contract being awarded to the lowest qualified bidder. Our members work hard to foster a business climate in which firms, whether union or open shop, can work together in harmony. Our members believe strongly in the principles of free enterprise and are committed to open competition as the cornerstone of our economic system.

Mr. Chairman, S. 1844 is about competition. Today, most of our domestic coal is hauled by railroad. Usually, only one railroad serves each coal producing area and no viable transportation alternatives are available to the coal producer. The result is predictable: prices which are higher than necessary and service that is often less than it should be.

In 1980, Congress properly determined that government regulation was not the solution to rising rail haulage rates. The Staggers Rail Act of 1980 replaced government regulation with regulation by the marketplace. S. 1844 will provide the necessary competition in coal transportation that will allow market forces to operate efficiently and effectively.

Mr. Chairman, the enactment of S. 1844 will benefit our members in at least two important ways. First, each of our members uses building materials, tools and equipment, the cost of which includes the cost of the energy used in their manufacture. Often that energy component includes the cost of the energy generated by coal. Any excessive costs incurred in the manufacture of these products are passed on to our members in the form of higher prices. Competition in coal haulage will assure that any such excessive costs are removed from the manufacturing system.

Second, the enactment of S. 1844 will allow a new industry to be formed without Federal financial assistance. Where the market will support a coal pipeline and where states will grant water for such pipelines, new, efficient transportation systems will be developed. This new construction activity will be of direct benefit to our members, particularly in this period of depressed construction activity and 18 percent unemployment in the construction industry.

Mr. Chairman, S. 1844 is consistent with the principles of free enterprise and competition that have made our nation great. This legislation grants to coal pipelines the same access to eminent domain authority that most interstate transportation systems have enjoyed during their formative stages. In fact, this legislation grants to coal pipelines the same eminent domain authority that many western railroads received from the Federal government during their formative stages in the 1860's. We encourage you and your Committee to report S. 1844 and assure its enactment this Congress.

Thank you.

WRITTEN TESTIMONY OF THE KEYSTONE BITUMINOUS COAL ASSOCIATION

The Keystone Bituminous Coal Association (KBCA) is a Pennsylvania unincorporated association of approximately 30 companies engaged in the mining of bituminous coal by both the surface and underground mining methods. Its membership represents about 45 percent of the total bituminous coal production in Pennsylvania, including more than 90 percent of the state's deep mine output. In terms of manpower, it represents approximately three-quarters of the men and women employed in Pennsylvania's bituminous coal fields.

KBCA appreciates this opportunity to present its views on S.1844. The Association supports enactment of this legislation which would authorize federal emminent domain powers for interstate coal pipeline distribution systems to enhance competition in the coal transportation market. Pipelines represent the most promising means of hauling coal over long distances and, by removing the legal impediments to obtaining rights-of-way, pipelines would become better able to effectively compete with railroads for a portion of the coal traffic.

If the aggressive coal program that this country has embarked upon in the mid-1970's is to materialize, the price of coal must remain competitive with other fuels. Coal transportation costs, that is the delivered price of coal from the mine to the user, is a significant component in the energy pricing formula. As the price of transportation skyrockets, the ability of coal to compete with other energy sources diminishes. To ensure that coal haulage rates are maintained at reasonable levels, healthy competition is needed in this area.

Currently, railroads enjoy a dominant position in the coal transportation market. They transport 65 percent of all coal mined in the U.S. Furthermore, 85 percent of all coal shipped by rail is "captive" business for which no alternative transportation system exists. Because of this monopolistic environment, railroads, for the most part, are able to charge what they deem appropriate for moving coal. Healthy competition in this arena may not only help to keep shipping rates in line but could serve to improve the overall efficiency and operation of the coal transportation network. The railroads would have to compete with the pipelines not only for the business itself but also for the terms and conditions of the contracts. This is not to say that if the pipelines begin transporting coal on a large scale they would totally displace the railroads' share of the market. Projected future demands for coal and and coal transportation are such that the market would allow for additional railroad distribution capacity even with pipelines. What is needed though, is a viable alternative transportation mode to provide the producers with a choice and to allow the market to function on a truly competitive basis. Pipelines represent such an alternative.

There is a growing concern in the utility steam coal market and the world export market over the high rates that producers are being assessed for the movement of their coal. Some foreign buyers are sending signals that higher transportation rates in the U.S. will force them to shop elsewhere for their coal. (It is significant to note that in 1981, coal exports added $6 billion to our balance of payments). Enactment of S.1844 will show these buyers that our country is indeed trying to address this problem.

Construction of coal pipelines will also put more American coal miners to work and help revitalize large segments of the construction industry. In addition, due to lower labor costs involved in operating these systems, pipelines are relatively inflation proof.

Coal pipelines are an efficient and environmentally sound way of transporting coal. They are noiseless, safe, do not cause traffic problems and the construction and operation of these systems are subject to federal and state environmental laws. Further S. 1844 does not infringe on the right of any state to control its own water resources and grants to the states exclusive rights to allocate water for pipelines. The measure also precludes any emminent domain authority to acquire this resource.

KBCA feels that by deferring the issue to the states and allowing each to individually pass laws granting emminent domain power to pipelines is a piecemeal approach to a pressing national issue. After 20 years of efforts by pipeline advocates, only 10 states have passed laws conferring emminent domain powers to pipelines. By the time the remaining states enact such legislation (if in fact they ever do), the U.S. could be excluded from the expanding coal export market and other coal markets. Therefore, it is important for Congress to deal directly with this issue by adopting S.1844.

Coal pipelines are still in an embryonic stage. Their true potential, while apparent, cannot be truly realized until certain roadblocks are removed. The most serious roadblock, the right-of-way issue, is sufficiently addressed by S.1844. With this in mind, KBCA asks for favorable action on this measure. Thank you.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

STATEMENT OF THE
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
THE COAL DISTRIBUTION AND UTILIZATION ACT, S. 1844
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

May 10, 1982

The National Society of Professional Engineers (NSPE) ~~joins the~~ Alliance for Coal and Competitive Transportation in supporting S. 1844, the Coal Distribution and Utilization ~~Act of 1981~~.

Established in 1934, NSPE today represents approximately 80,000 engineers nationwide. The Society's membership includes every aspect of the profession from engineers in industry, private practice, and construction to those employed in the fields of government and education.

The National Society of Professional Engineers believes that the United States must make better use of its coal resources. Our current reliance on railroads to haul this commodity has forced our utilities to pay unreasonably high transportation costs for domestically-produced coal. In some areas, we have reached the point where it is now less expensive to import coal from foreign countries.

The construction of coal slurry pipelines will provide competition to the railroads for coal traffic, and can play an important role in bringing affordable, domestically-produced coal to our utilities. Obviously, this will also help keep down energy costs for American consumers.

The Coal Distribution and Utilization Act would eliminate current barriers to pipeline construction while protecting the water rights of the states.

Under S. 1844, a coal pipeline distribution system would have access to Federal eminent domain authority for use in acquiring rights of way if the Secretary of Energy, or his successor, determines that the pipeline is in the national interest. The lack of eminent domain authority is currently frustrating pipeline construction.

The bill protects State water rights by requiring that water used in the pipelines be obtained in accordance with State law. Furthermore, the use of water in coal slurry pipelines in not considered a use in interstate commerce under S. 1844, which provides an important legislative safeguard to the states.

As a member organization of the Alliance for Coal and Competitive Transportation, NSPE urges the Committee on Energy and Natural Resources to act favorably on this proposal.

STATEMENT OF

MARILYN QUINN

EXECUTIVE DIRECTOR
YOUTH FOR ENERGY INDEPENDENCE

Mr. Chairman and members of the committee, I want to thank you for the opportunity to be here today. I represent a new organization, Youth for Energy Independence (YEI). YEI was formed in January 1982 to help develop a consensus among young Americans for policies which promote our national security and economic growth through increased domestic energy development. The YEI coalition includes leaders from the College Republicans,Young Democrats, NAACP, Labor, industry and the scientific community.

Mr. Chairman, although YEI is a new organization, we do represent a broad cross section of opinion in the youth community. We are speaking for all members of the YEI coalition when we endorse S.1844, the Coal Distribution and Utilization Act of 1981.

Previous witnesses have made a compelling case in support of S. 1844 and I will not go over the same ground. Instead I would like to discuss the Coal Slurry Act as it relates to young people in terms of its implications for national security, employment, and the environment.

NATIONAL SECURITY

In 1947, the U.S. for the first time became a net importer of oil. A quarter century later, the impact of our dependence on others for our energy security hit home. The 1973 Arab oil embargo was a cruel lesson for Americans. Over a 25 year period the U.S. has become painfully dependent on other nations for the energy needed to maintain the highest standard of living in the world.

America's role as the leader of the free world has severely deteriorated since that time. Foreign policy decisions are presently being influenced by the desperate search for a secure supply of imported oil at the expense of national security interests. Western Europe is turning to the Soviet Union for natural gas supplies to fuel its industry and heat its homes. Without adequate energy supplies America will be continually weakened economically, vulnerable to the designs of hostile nations and unable to fulfill its role as the dominant democratic force and voice of freedom in the world.

The United States will remain dependent on oil imports through the turn of the century. **Nine years after the first Arab oil embargo the United States is more dependent on oil imports than at the time of the 1973 embargo.** Periodic oil gluts will not eliminate our oil dependence - nor should we allow them to encourage the type of complacency we now are now witnessing.

The economic ramifications of this energy dependence are staggering. The $79 billion dollars which flowed out of the United States in 1980 to pay for our oil imports created a record balance of trade deficit. Along with skyrocketing costs for oil, these deficits have led to higher interest rates, spiraling inflation and excessive unemployment. While Americans have reduced total oil consumption through conservation, escalating costs have continued to drive up the total cost of imported oil. Inflation, unemployment and lower expectations forced upon young people and everyone else are the result.

S. 1844 is a critical step in moving towards full utilization of our most abundant energy resource, coal and reduction of our dependence on imported oil. The purpose of S. 1844 is to facilitate the development of interstate coal pipeline systems determined to be in the national interest. When an interstate coal pipeline system is found to be in the national interest, under S. 1844, it would be granted federal eminent domain only for acquisition of rights-of-way.

In previous testimony, Ron Workman, Senior Vice President of Continental Resources Company, testified in support of S. 1844. Workman's company is developing a coal pipeline, to be operated by the Coalstream Pipeline Company, which will deliver up to 55 million tons of coal annually 1500 miles from Illinois to Florida and Georgia. When that system is on line, it will replace one million tons of coal imported by Florida (1980) -- 750,000 tons from South Africa and 240,000 tons from Poland.

How can it possibly be in America's national interest to deny eminent domain for coal slurry pipelines, thereby keeping transportation rates so high that imported coal is more economical?

And yet, that is exactly what we have done.

By 1990 U.S. coal will be forced to compete with South American coal as well as Polish and South African coal as the world's largest surface mine goes into production in Columbia in the late 1980's.

In addition to replacing imported coal, this coal pipeline along with the others, will replace significant amounts of imported oil.

In February, 1980, National Economic Research Associates (NERA) completed an assessment of the economic and energy benefits of the Coalstream Pipeline.

The NERA study projected a saving of 633.2 million barrels of diesel fuel, No. 2 heating oil and railroad fuel for the decade 1990-2000.

American national security interests must be taken into account when policy decisions affecting energy resource development are made. And from a national security point of view, coal slurry pipelines are long overdue.

EMPLOYMENT

Coal Slurry Pipelines will be a job creation program without costing the tax payers a nickel. Over 5,000 permanent mining jobs will be created along with thousands of jobs in construction, manufacturing, and pump station management.

Coal slurry legislation must be viewed as part of a national strategy to develop a stable, affordable supply of domestic energy which is critical in order to achieve economic growth or full employment.

Young Americans are increasingly aware of the dangers created by our energy dependence. Without a stable and affordable energy supply we cannot have the economic growth which is essential for job creation. Without economic growth there will be few jobs available for today's and tomorrow's young people.

ENVIRONMENT

Young Americans have an intense commitment to protecting our environment.

Pipelines offer significant environmental advantages over rail or truck transportation. Coal pipeline are noiseless, safe and underground. They do not interfere with other surface activities; do not emit dust or create noise problems; and are not affected by the hazards of weather. The noise levels of trains can be objectionable in cities and towns, especially in small towns where the rights-of-way often pass through residential neighborhoods.

Some concern also has been expressed about the disruption to the land by building a coal slurry pipeline. This should not be a significant problem since pipelines are buried deep in the ground, below the frost line. Farmers can work the land above them. A coal slurry pipeline that either uses the eminent domain authority in the pending legislation or one that crosses federal land will be subject to the requirements of the National Environmental Policy Act which includes among other requirements the preparation of an environmental impact statement.

Serious concerns have been raised about the use of scarce western water for coal slurry pipelines. The bill before this committee adequately protects water rights. Historically, water allocation has been a matter of State law. The bill before this committee does not change existing law governing water rights. It specifically provides three safeguards for water rights. First, the Act provides that the power of eminent domain does not apply to water rights. Secondly, the bill stipulates that "nothing in this act shall alter in any way any provision of State law, regulation, or rule of law or of any interstate compact governing the appropriation, use or diversion of water." And third, the bill prohibits the use of the Commerce Clause power to preempt state water law.

Concern also has been expressed about the amount of water used for coal slurry pipelines. At the point of origin, coal slurry pipelines use significantly less water than either mine-mouth electric generating plants or synthetic fuel plants built in the same area. Coal slurry lines use about half the water needed for coal gasification facilities. Also, coal slurry lines can use water which is not suitable for agricultural or municipal use, or is too contaminated or saline for some purposes.

There is no sound environmental objection to this legislation. On the contrary, all environmental arguments are on the side of coal slurry pipeline development.

In conclusion, I would like to repeat that in terms of America's national security interests, in terms of economic growth and job creation, and in terms of environmental protection, coal slurry pipeline development is long overdue. Mr. Chairman, Youth for Energy Independence urges you, your fellow Committee members and Congress to give early and favorable consideration to S. 1844

NOTE: Where it is feasible, a syllabus (headnote) will be released, as is being done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States* v. *Detroit Lumber Co.*, 200 U. S. 321, 337.

SUPREME COURT OF THE UNITED STATES

Syllabus

SPORHASE ET AL. *v.* NEBRASKA EX REL. DOUGLAS, ATTORNEY GENERAL

APPEAL FROM SUPREME COURT OF NEBRASKA

No. 81-613. Argued March 30, 1982—Decided July 2, 1982

A Nebraska statute requires any person intending to withdraw ground water from any well located in the State and transport it for use in an adjoining State, to obtain a permit from the Nebraska Department of Water Resources. If the Director of Water Resources finds that such withdrawal is reasonable, not contrary to the conservation and use of ground water, and not otherwise detrimental to the public welfare, he will grant the permit if the State in which the water is to be used grants reciprocal rights to withdraw and transport ground water from that State for use in Nebraska. Appellants own contiguous tracts of land in Nebraska and Colorado, on which a well on the Nebraska tract pumps ground water for irrigation of both the Nebraska and Colorado tracts, but they never applied for the permit required by the statute. Appellee brought an action in a Nebraska state court to enjoin appellants from transferring the water across the border without a permit. Rejecting the defense that the statute imposed an undue burden on interstate commerce, the trial court granted the injunction. The Nebraska Supreme Court affirmed.

Held:

1. Ground water is an article of commerce and therefore subject to congressional regulation. Pp. 3–11.

(a) Although appellee's claimed greater ownership interest in ground water than in certain other natural resources may not be irrelevant to Commerce Clause analysis, it does not remove Nebraska ground water from such scrutiny, since appellee's argument is still based on the legal fiction of state ownership. Pp. 3–10.

(b) The States' interests in conserving and preserving scarce water resources in the arid Western States clearly have an interstate dimension. The agricultural markets supplied by irrigated farms provide the archetypical example of commerce among the States for which the Framers of the Constitution intended to authorize federal regulation. Here, the multistate character of the aquifer underlying appellants' tracts of land, as well as parts of Texas, New Mexico, Oklahoma, and Kansas, demonstrates that there is a significant federal interest in conservation as well as in fair allocation of diminishing water resources. Pp. 10–11.

2. The reciprocity requirement of the Nebraska statute violates the Commerce Clause as imposing an impermissible burden on interstate commerce. While the first three conditions set forth in the statute for granting a permit—that the withdrawal of the ground water be reasonable, not contrary to the conservation and use of ground water, and not otherwise detrimental to the public welfare—do not on their faces impermissibly burden interstate commerce, the reciprocity provision operates as an explicit barrier to commerce between Nebraska and its adjoining States. Nebraska therefore has the initial burden of demonstrating a close fit between the reciprocity requirement and its asserted local purpose. Such requirement, when superimposed on the first three restrictions, fails to clear this initial hurdle, since there is no evidence that it is narrowly tailored to the conservation and preservation rationale. Thus, it does not survive the "strictest scrutiny" reserved for facially discriminatory legislation. Pp. 12–16.

3. Congress has not granted the States permission to engage in ground water regulation that would otherwise be impermissible. Although there are 37 federal statutes and a number of interstate compacts demonstrating Congress' deference to state water law, they do not indicate that Congress wished to remove federal constitutional restraints on such state law. Neither the fact that Congress has chosen not to create a federal water law to govern water rights involved in federal water projects nor the fact that Congress has been willing to let the States settle their differences over water rights through mutual agreement, constitutes persuasive evidence that Congress consented to the unilateral imposition of unreasonable burdens on commerce. Pp. 16–18.

208 Neb. 703, 305 N. W. 2d 614, reversed and remanded.

STEVENS, J., delivered the opinion of the Court, in which BURGER, C. J., and BRENNAN, WHITE, MARSHALL, BLACKMUN, and POWELL, JJ., joined. REHNQUIST, J., filed a dissenting opinion, in which O'CONNOR, J., joined.

NOTICE: This opinion is subject to formal revision before publication in the preliminary print of the United States Reports. Readers are requested to notify the Reporter of Decisions, Supreme Court of the United States, Washington, D.C. 20543, of any typographical or other formal errors, in order that corrections may be made before the preliminary print goes to press.

SUPREME COURT OF THE UNITED STATES

No. 81-613

JOY SPORHASE AND DELMER MOSS, ETC., APPELLANTS *v.* NEBRASKA, EX REL. PAUL L. DOUGLAS, ATTORNEY GENERAL

APPEAL FROM THE SUPREME COURT OF NEBRASKA

[July 2, 1982]

JUSTICE STEVENS delivered the opinion of the Court.

Appellants challenge the constitutionality of a Nebraska statutory restriction on the withdrawal of ground water from any well within Nebraska intended for use in an adjoining State. The challenge presents three questions under the Commerce Clause:[1] (1) whether ground water is an article of commerce and therefore subject to Congressional regulation; (2) whether the Nebraska restriction on the interstate transfer of ground water imposes an impermissible burden on commerce; and (3) whether Congress has granted the States permission to engage in ground water regulation that otherwise would be impermissible.

Appellants jointly own contiguous tracts of land in Chase County, Nebraska, and Phillips County, Colorado. A well physically located on the Nebraska tract pumps ground water for irrigation of both the Nebraska tract and the Colorado tract. Previous owners of the land registered the well with the State of Nebraska in 1971, but neither they nor the present owners applied for the permit required by § 46-613.01 of the Nebraska Revised Statutes. That section provides:

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[1] Article I, § 8, cl. 3 of the United States Constitution provides: "The Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes. . . ." For general explanations of Commerce Clause analysis, see, *e. g.*, *Western & Southern Life Insurance Co.* v. *State Board of Equalization*, 451 U. S. 648, 652–653 (1981); *Southern Pacific Co.* v. *Arizona*, 325 U. S. 761, 766–770 (1945).

> "Any person, firm, city, village, municipal corporation or any other entity intending to withdraw ground water from any well or pit located in the State of Nebraska and transport it for use in an adjoining state shall apply to the Department of Water Resources for a permit to do so. If the Director of Water Resources finds that the withdrawal of the ground water requested is reasonable, is not contrary to the conservation and use of ground water, and is not otherwise detrimental to the public welfare, he shall grant the permit if the state in which the water is to be used grants reciprocal rights to withdraw and transport ground water from that state for use in the State of Nebraska."

Appellee brought this action to enjoin appellants from transferring the water across the border without a permit.[2] The trial court rejected the defense that the statute imposed an undue burden on interstate commerce and granted the injunction. The Nebraska Supreme Court affirmed. 208 Neb. 703, 305 N.W. 2d 614 (1981). It held that, under Nebraska law, ground water is not "a marketable item freely transferable for value among private parties, and therefore [is] not an article of commerce." *Id.*, at 705, 305 N.W. 2d, at 616.[3] The Chief Justice, while agreeing that the statutory criteria governing the transfer of water to an adjoining State did not violate the Commerce Clause, dissented on the narrow ground that appellee violated both the Federal and Nebraska Constitutions by attempting "to absolutely prohibit the transfer of water, without regard to its need or availability, based solely upon the acts of another state over which citizens of this state have no control." *Id.*, at 713, 305 N.W. 2d, at 620.

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[2] Because of the reciprocity requirement of § 46-613.01, appellants would not have been granted a permit had they applied for one. Their failure to submit an application therefore does not deprive them of standing to challenge the legality of the reciprocity requirement. Cf. *Larson* v. *Valente*, —— U. S. —— (1982).

[3] The Nebraska Supreme Court also rejected appellants' equal protection and due process challenges. Appellants renew those challenges before this Court, but we need not reach these issues in light of our dispo-

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In holding that ground water is not an article of commerce, the Nebraska Supreme Court and appellee cite as controlling precedent *Hudson County Water Co.* v. *McCarter*, 209 U. S. 349 (1908). In that case a New Jersey statute prohibited the interstate transfer of any surface water located within the State.[4] The Hudson County Water Company nevertheless contracted with New York City to supply one of its boroughs with water from the Passaic River in New Jersey. The state attorney general sought from the New Jersey courts an injunction against fulfillment of the contract. Over the water company's objections that the statute impaired the obligation of contract, took property without just compensation, interfered with interstate commerce, denied New York citizens the privileges afforded New Jersey citizens, and denied New York citizens the equal protection of the laws, the injunction was granted. This Court, in an opinion by Justice Holmes, affirmed.

Most of the Court's opinion addresses the just compensation claim. Justice Holmes refused to ground the Court's holding, as did the New Jersey state courts,[5] on "the more or

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sition of the Commerce Clause claim.

[4] The Court quoted the statute: "It shall be unlawful for any person or corporation to transport or carry, through pipes, conduits, ditches or canals, the waters of any fresh water lake, pond, brook, creek, river or stream of this State into any other State, for use therein." 209 U. S., at 353.

[5] "The Courts below assumed or decided and we shall assume that the

less attenuated residuum of title that the State may be said to possess." *Id.*, at 355. For the statute was justified as a regulatory measure that, on balance, did not amount to a taking of property that required just compensation. Putting aside the "problems of irrigation," the State's interest in preserving its waters was well within its police power.[4] That interest was not dependent on any demonstration that the State's water resources were inadequate for present or future use. The State "finds itself in possession of what all admit to be a great public good, and what it has it may keep and give no one a reason for its will." *Id.*, at 357.

Having disposed of the just compensation claim, Justice Holmes turned very briefly to the other constitutional challenges. In one paragraph, he rejected the Contract Clause claim. In the remaining paragraph of the opinion, he rejected all the other defenses. His treatment of the Commerce Clause challenge consists of three sentences: "A man

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defendant represents the rights of a riparian proprietor, and on the other hand, that it represents no special chartered powers that give it greater rights than those. On these assumptions the Court of Errors and Appeals pointed out that a riparian proprietor has no right to divert waters for more than a reasonable distance from the body of the stream or for other than the well-known ordinary uses, and that for any purpose anywhere he is narrowly limited in amount. It went on to infer that his only right in the body of the stream is to have the flow continue, and that there is a residuum of public ownership in the State. It reinforced the State's rights by the State's title to the bed of the stream where flowed by the tide, and concluded from the foregoing and other considerations that, as against the rights of riparian owners merely as such, the State was warranted in prohibiting the acquisition of the title to water on a larger scale." *Id.*, at 354.

[4] "The problems of irrigation have no place here. Leaving them on one side, it appears to us that few public interests are more obvious, indisputable and independent of particular theory than the interest of the public of a State to maintain the rivers that are wholly within it substantially undiminished, except by such drafts upon them as the guardian of the public welfare may permit for the purpose of turning them to a more perfect use." *Id.*, at 356.

cannot acquire a right to property by his desire to use it in commerce among the States. Neither can he enlarge his otherwise limited and qualified right to the same end. The case is covered in this respect by *Geer* v. *Connecticut*, 161 U. S. 519 [(1896)]." 209 U. S., at 357.

While appellee relies upon *Hudson County*, appellants rest on our summary affirmance of a three-judge district court judgment in *City of Altus* v. *Carr*, 255 F.Supp. 828 (W.D. Tex.), aff'd mem., 385 U. S. 35 (1966). The City of Altus is located near the southern border of Oklahoma. Large population increases rendered inadequate its source of municipal water. It consequently obtained from the owners of land in an adjoining Texas county the contractual right to pump the ground water underlying that land and to transport it across the border. The Texas legislature thereafter enacted a statute that forbade the interstate exportation of ground water without the approval of that body.[7] The City filed suit in federal district court, claiming that the statute violated the Commerce Clause.

The City relied upon *West* v. *Kansas Natural Gas Co.*, 221 U. S. 229 (1910), which invalidated an Oklahoma statute that prevented the interstate tranfer of natural gas produced within the State,[8] and *Pennsylvania* v. *West Virginia*, 262 U. S. 553 (1923), which invalidated a West Virginia statute that accorded a preference to the citizens of that State in the purchase of natural gas produced therein.[9] The Texas attorney general defended the statute on two grounds. First, he asserted that its purpose was to conserve and protect the State's water resources by regulating the withdrawal of ground water. The district court rejected that defense because similar conservation claims had met defeat in *West* v. *Kansas Natural Gas Co., supra*, and *Pennsylvania* v. *West Virginia, supra.*[10] Second, the State argued that the statute regulated ground water and that ground water is not an article of commerce, citing *Geer* v. *Connecticut, supra*, and *Hudson County, supra*. The court rejected this argument since the statute directly regulated the interstate transportation of water that had been pumped from the ground, and under Texas law such water was an article of commerce. The court then had little difficulty in concluding that the statute imposed an impermissible burden on interstate commerce.[11]

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[7] The district court quoted the statute: "No one shall withdraw water from any underground source in this State for use in any other state by drilling a well in Texas and transporting the water outside the boundaries of the State unless the same be specifically authorized by an Act of the Texas Legislature and thereafter as approved by it." 255 F.Supp., at 830.

[8] Justice Holmes, the author of the Court's opinion in *Hudson County*, noted his dissent. See 221 U. S., at 262.

[9] Justice Holmes dissented, expressing the view that the Court's decision was inconsistent with *Hudson County*. See 262 U. S., at 603.

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[10] The district court opinion, 255 F.Supp., at 839, included these quotations from the two cases:

"The statute of Oklahoma recognizes [natural gas] to be a subject of intrastate commerce, but seeks to prohibit it from being the subject of interstate commerce, and this is the purpose of its conservation. In other words, the purpose of its conservation is in a sense commercial—the business welfare of the state, as coal might be, or timber. Both of these products might be limited in amount, and the same consideration of the public welfare which would confine gas to the use of the inhabitants of a state would confine them to the inhabitants of the state. If the states have such power, a singular situation might result. Pennsylvania might keep its coal, the Northwest its timber, the mining states their minerals. And why may not the products of the field be brought within the principle?" *West* v. *Kansas Natural Gas Co.*, 221 U. S. 229, 255 (1910).

"Another consideration advanced to the same end is that natural gas is a natural product of the state and has become a necessity therein, that the supply is waning and no longer sufficient to satisfy local needs and be used abroad, and that the act is therefore a legitimate measure of conservation in the interest of the people of the state. If the situation be as stated, it affords no ground for the assumption by the state of the power to regulate interstate commerce, which is what the act attempts to do. That power is lodged elsewhere." *Pennsylvania* v. *West Virginia*, 262 U. S. 553, 598 (1923).

[11] "Considering the statute in question only with regard to whether it

In summarily affirming the district court in *City of Altus*, we did not necessarily adopt the court's reasoning. Our affirmance indicates only our agreement with the result reached by the district court. *Metromedia, Inc.* v. *City of San Diego*, 453 U. S. 490, 499 (1981). That result is not necessarily inconsistent with the Nebraska Supreme Court's holding in this case. For Texas law differs significantly from Nebraska law regarding the rights of a surface owner to ground water that he has withdrawn. According to the district court in *City of Altus*, the "rule in Texas was that an owner of land could use all of the percolating water he could capture from the wells on his land for whatever beneficial purposes he needed it, on or off the land, and could likewise sell it to others for use on or off the land and outside the basin where produced, just as he could sell any other species of property." 255 F.Supp., at 833, n. 8. Since ground water, once withdrawn, may be freely bought and sold in States that follow this rule, in those States ground water is appropriately regarded as an article of commerce. In Nebraska the surface owner has no comparable interest in ground water. As explained by the Nebraska Supreme Court, "'the owner of land is entitled to appropriate subterranean waters found under his land, but he cannot extract and appropriate them in

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regulates the transportation and use of water after it has been withdrawn from a well and becomes personal property, such statute constitutes an unreasonable burden upon and interference with interstate commerce. Moreover, on the facts of this case it appear to us that [the Texas statute] does not have for its purpose, nor does it operate to conserve water resources of the State of Texas except in the sense that it does so for her own benefit to the detriment of her sister States as in the case of West v. Kansas Natural Gas Co. In the name of conservation, the statute seeks to prohibit interstate shipments of water while indulging in the substantial discrimination of permitting the unrestricted intrastate production and transportation of water between points within the State, no matter how distant; for example, from Wilbarger County to El Paso County, Texas. Obviously, the statute had little relation to the cause of conservation." 255 F.Supp., at 839–840.

excess of a reasonable and beneficial use upon the land which he owns, especially if such use is injurious to others who have substantial rights to the waters, and if the natural underground supply is insufficient for all owners, each is entitled to a reasonable proportion of the whole.'" 208 Neb., at 705, 305 N.W. 2d, at 617 (quoting *Olson* v. *City of Wahoo*, 124 Neb. 802, 811, 248 N.W. 304, 308 (1933)).

City of Altus, however, is inconsistent with *Hudson County*. For in the latter case the Court found *Geer* v. *Connecticut*, *supra*, to be controlling on the Commerce Clause issue. *Geer*, which sustained a Connecticut ban on the interstate transportation of game birds captured in that State, was premised on the theory that the State owned its wild animals and therefore was free to qualify any ownership interest it might recognize in the persons who capture them. One such restriction is a prohibition against interstate transfer of the captured animals. This theory of public ownership was advanced as a defense in *City of Altus*. The State argued that it owned all subterranean water and therefore could recognize ownership in the surface owner who withdraws the water, but restrict that ownership to use of the water within the State. That theory, upon which the Commerce Clause issue in *Hudson County* was decided, was rejected by the district court in *City of Altus*.[12] In expressly overruling *Geer* three years ago, this Court traced the demise of the public ownership theory and definitively recast it as "'but a fiction expressive in legal shorthand of the importance to its people that a State have power to preserve and regulate the exploitation of an important resource.'" *Hughes* v. *Oklahoma*, 441 U. S. 322, 334 (1979) (quoting *Toomer* v. *Witsell*, 334 U. S. 385, 402 (1948)). See also *Baldwin* v. *Montana Fish and Game Comm'n*, 436 U. S. 371, 384–387 (1978); *Douglas* v. *Seacoast Products, Inc.*, 431 U. S. 265, 284–285 (1977). In *Hughes* the Court found the State's interests insufficient to sustain a ban on the interstate transfer of natural minnows seined from waters within the State.

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[12] "This statute, however, seeks to prohibit the production of underground water for the purpose of transporting same in interstate commerce, and has the effect of prohibiting the interstate transportation of such water after it has become personal property. Whether a statute by its phraseology prohibits the interstate transportation of an article of commerce after it has become the personal property of someone as in the Pennsylvania and West cases, or prohibits the withdrawal of such substance where the intent is to transport such in interstate commerce, the result upon interstate commerce is the same. In both situations, the purpose and intent of the statute and the end result thereof is to prohibit the interstate transportation of an article of commerce." *Id.*, at 840.

Appellee insists, however, that Nebraska water is distinguishable from other natural resources. The surface owner who withdraws Nebraska ground water enjoys a lesser ownership interest in the water than the captor of game birds in Connecticut or minnows in Oklahoma or ground water in Texas, for in *Geer*, *Hughes*, and *City of Altus* the States permitted intrastate trade in the natural resources once they were captured. Although appellee's greater ownership interest may not be irrelevant to Commerce Clause analysis, it does not absolutely remove Nebraska ground water from such scrutiny. For appellee's argument is still based on the legal fiction of state ownership. The fiction is illustrated by municipal water supply arrangements pursuant to which ground water is withdrawn from rural areas and transferred to urban areas. Such arrangements are permitted in Nebraska, see *Metropolitan Utilities District* v. *Merritt Beach Co.*, 173 Neb. 783, 140 N.W. 2d 626 (1966), but the Nebraska Supreme Court distinguished them on the ground that the transferror was only permitted to charge as a price for the water his costs of distribution and not the value of the water itself. 208 Neb., at 708, 305 N.W. 2d, at 618. Unless demand is greater than supply, however, this reasoning does not distinguish minnows, the price of which presumably is derived from the costs of seining and of transporting the catch to market. Even in cases of shortage, in which the seller of the natural resource can demand a price that exceeds his costs, the State's rate structure that requires the price to be cost-justified is economically comparable to price regulation. A State's power to regulate prices or rates has never been thought to depend on public ownership of the controlled commodity. It would be anomalous if federal power to regulate economic transactions in natural resources depended on the characterization of the payment as compensation for distribution services, on the one hand, or as the price of goods, on the other. Cf. *In re Rahrer*, 140 U. S. 545, 558 (1891).

The second asserted distinction is that water, unlike other natural resources, is essential for human survival. Appellee, and the *amici curiae* that are vitally interested in conserving and preserving scarce water resources in the arid Western States, have convincingly demonstrated the desirability of state and local management of ground water.[13] But the States' interests clearly have an interstate dimension. Although water is indeed essential for human survival, studies indicate that over 80% of our water supplies is used for agricultural purposes.[14] The agricultural markets supplied by irrigated farms are worldwide. They provide the archtypical example of commerce among the several States for which the Framers of our Constitution intended to authorize federal regulation. The multistate character of the Ogallala aquifer—underlying appellants' tracts of land in Colorado and Nebraska, as well as parts of Texas, New Mexico, Oklahoma, and Kansas[15]—confirms the view that there is a significant federal interest in conservation as well as in fair allocation of this diminishing resource. Cf. *Arizona* v. *California*, 373 U. S. 546 (1963).

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[13] In *California* v. *United States*, 438 U. S. 645, 648 (1978), we explained some of the circumstances that support a general policy of local water management under differing legal systems:

"The very vastness of our territory as a Nation, the different times at which it was acquired and settled, and the varying physiographic and climate regimes which obtain in its different parts have all but necessitated the recognition of legal distinctions corresponding to these differences. Those who first set foot in North America from ships sailing the tidal estuaries of Virginia did not confront the same problems as those who sailed flat boats down the Ohio River in search of new sites to farm. Those who cleared the forests in the old Northwest Territory faced totally different physiographic problems from those who built sod huts on the Great Plains. The final expansion of our Nation in the 19th century into the arid lands beyond the hundredth meridian of longitude, which had been shown on early maps as the 'Great American Desert,' brought the participants in that expansion face to face with the necessity for irrigation in a way that no previous territorial expansion had."

The Western States' interests, and their asserted superior competence, in conserving and preserving scarce water resources are not irrelevant in the Commerce Clause inquiry. Nor is appellee's claim to public ownership without significance. Like Congress' deference to state water law, see *infra*, at 16–18, these factors inform the determination whether the burdens on commerce imposed by state ground water regulation are reasonable or unreasonable. But appellee's claim that Nebraska ground water is not an article of commerce goes too far: it would not only exempt Nebraska ground water regulation from burden-on-commerce analysis, it also would curtail the affirmative power of Congress to implement its own policies concerning such regulation. See *Philadelphia* v. *New Jersey*, 437 U. S. 617, 621–623 (1978). If Congress chooses to legislate in this area under its commerce power, its regulation need not be more limited in Nebraska than in Texas and States with similar property laws.

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[14] Soil Conservation Service, U. S. Dept. of Agriculture, America's Soil and Water: Conditions and Trends 21 (1980).

[15] Comptroller General, Ground Water Overdrafting Must Be Controlled 7–8 (1980).

Ground water overdraft is a national problem and Congress has the power to deal with it on that scale.

II

Our conclusion that water is an article of commerce raises, but does not answer, the question whether the Nebraska statute is unconstitutional. For the existence of unexercised federal regulatory power does not foreclose state regulation of its water resources, of the uses of water within the State, or indeed, of interstate commerce in water. *Southern Pacific Co.* v. *Arizona*, 325 U. S. 761, 766–767 (1945); *United States* v. *South-Eastern Underwriters Assn.*, 322 U. S. 533, 548–549 (1944); *Cooley* v. *Board of Wardens*, 12 How. 299, 319 (1851). Determining the validity of state statutes affecting interstate commerce requires a more careful inquiry:

> "Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities." *Pike* v. *Bruce Church, Inc.*, 397 U. S. 137, 142 (1970) (citation omitted).

The only purpose that appellee advances for § 46–613.01 is to conserve and preserve diminishing sources of ground water. The purpose is unquestionably legitimate and highly important,[18] and the other aspects of Nebraska's ground water regulation demonstrate that it is genuine. Appellants' land in Nebraska is located within the boundaries of the Upper Republican Ground Water Control Area, which was designated as such by the Director of the Nebraska Department of Water Resources based upon a determination "that there is an inadequate ground water supply to meet present or reasonably foreseeable needs for beneficial use of such water supply." Neb. Rev. Stat. § 46–658(1); see App. 56–60. Pursuant to § 46–666(1), the Upper Republican Natural Resources District has promulgated special rules and regulations governing ground water withdrawal and use. See App. 61–82. The rules and regulations define as "critical" those townships in the control area in which the annual decline of the ground water table exceeds a fixed percentage; appellants' Nebraska tract is located within a critical township. The rules and regulations require the installation of flow meters on every well within the control area, specify the amount of water per acre that may be used for irrigation, and set the spacing that is required between wells. They also strictly limit the intrastate transfer of ground water: transfers are only permitted between lands controlled by the same groundwater user, and all transfers must be approved by the district board of directors. *Id.*, at 68–69.

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[18] See *Cities Service Gas Co.* v. *Peerless Oil & Gas Co.*, 340 U. S. 179, 188 (1950) ("Insofar as conservation is concerned, the national interest and the interest of producing states may well tend to coincide.").

The State's interest in conservation and preservation of ground water is advanced by the first three conditions in § 46–613.01 for the withdrawal of water for an interstate transfer. Those requirements are "that the withdrawal of the ground water requested is reasonable, is not contrary to the conservation and use of ground water, and is not otherwise detrimental to the public welfare." Although Commerce Clause concerns are implicated by the fact that § 46–613.01 applies to interstate transfers but not to intrastate transfers, there are legitimate reasons for the special treatment accorded requests to transport ground water across state lines. Obviously, a State that imposes severe withdrawal and use restrictions on its own citizens is not discriminating against interstate commerce when it seeks to prevent the uncontrolled transfer of water out of the State. An exemption for interstate transfers would be inconsistent with the ideal of evenhandedness in regulation. At least in the area in which appellants' Nebraska tract is located, the first three standards of § 46-613.01 may well be no more strict in application than the limitations upon intrastate transfers imposed by the Upper Republican Natural Resources District.

Moreover, in the absence of a contrary view expressed by Congress, we are reluctant to condemn as unreasonable measures taken by a State to conserve and preserve for its own citizens this vital resource in times of severe shortage. Our reluctance stems from the "confluence of [several] realities." *Hicklin* v. *Orbeck*, 437 U. S. 518, 534 (1978). First, a State's power to regulate the use of water in times and places of shortage for the purpose of protecting the health of its citizens—and not simply the health of its economy—is at the core of its police power. For Commerce Clause purposes, we have long recognized a difference between economic protectionism, on the one hand, and health and safety regulation, on the other. See *H. P. Hood & Sons* v. *Du Mond*, 336 U. S. 525, 533 (1949). Second, the legal expectation that under cetain circumstances each State may restrict water within its borders has been fostered over the years not only by our equitable apportionment decrees, see, *e. g.*, *Wyoming* v. *Colorado*, 353 U. S. 953 (1957), but also by the negotiation and enforcement of interstate compacts. Our law therefore has recognized the relevance of state boundaries in the allocation of scarce water resources. Third, although appellee's claim to public ownership of Nebraska ground water cannot justify a total denial of federal regulatory power, it may support a limited preference for its own citizens in the utilization of the resource. See *Hicklin* v. *Orbeck*, *supra*, at 533-534. In this regard, it is relevant that appellee's claim is logically more substantial than claims to public ownership of other natural resources. See *supra*, at 7-9. Finally, given appellee's conservation efforts, the continuing availability of ground water in Nebraska is not simply happenstance; the natural resource has some indicia of a good publicly produced and owned in which a State may favor its own citizens in times of shortage. See *Reeves, Inc.* v. *Stake*, 447 U. S. 429 (1980); cf. *Philadelphia* v. *New Jersey*, *supra*, at 627–628 and n. 6; *Baldwin* v. *Fish and Game Comm'n*, *supra*. A facial examination of the first three conditions set forth in §46–613.01 does not, therefore, indicate that they impermissibly burden interstate commerce. Appellants, indeed, seem to concede their reasonableness.

Appellants, however, do challenge the requirement that "the state in which the water is to be used grants reciprocal rights to withdraw and transport ground water from that state for use in the State of Nebraska"—the reciprocity provision that troubled the Chief Justice of the Nebraska Supreme Court. Because Colorado forbids the exportation of its ground water,[17] the reciprocity provision operates as an explicit barrier to commerce between the two States. The State therefore bears the initial burden of demonstrating a close fit between the reciprocity requirement and its asserted local purpose. *Hughes* v. *Oklahoma*, *supra*, at 336; *Dean Milk Co.* v. *City of Madison*, 340 U. S. 349, 354 (1951).

The reciprocity requirement fails to clear this initial hurdle. For there is no evidence that this restriction is narrowly tailored to the conservation and preservation rationale. Even though the supply of water in a particular well may be abundant, or perhaps even excessive, and even though the most beneficial use of that water might be in another State, such water may not be shipped into a neighboring State that does not permit its water to be used in Nebraska. If it could be shown that the State as a whole suffers a water shortage, that the intrastate transportation of water from areas of abundance to areas of shortage is feasible regardless of distance, and that the importation of water from adjoining States would roughly compensate for any exportation to those States, then the conservation and preservation purpose might be credibly advanced for the reciprocity provision. A demonstrably arid state conceivably might be able to marshall evidence to establish a close means-end relationship between even a total ban on the exportation of water and a purpose to conserve and preserve water. Appellee, however, does not claim that such evidence exists. We therefore are not persuaded that the reciprocity requirement—when superimposed on the first three restrictions in the statute—significantly advances the State's legitimate conservation and preservation interest; it surely is not narrowly tailored to serve that purpose. The reciprocity requirement does not survive the "strictest scrutiny" reserved for facially discriminatory legislation. *Hughes* v. *Oklahoma*, *supra*, at 337.[18]

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[17] Colo. Rev. Stat. §37–90–136 provides as follows:

"For the purpose of aiding and preserving unto the state of Colorado and all its citizens the use of all ground waters of this state, whether tributary or nontributary to a natural stream, which waters are necessary for the health and prosperity of all the citizens of the state of Colorado, and for the growth, maintenance, and general welfare of the state, it is unlawful for any person to divert, carry, or transport by ditches, canals, pipelines, conduits, or any other manner any of the ground waters of this state, as said waters are in this section defined, into any other state for use therein."

III

Appellee's suggestion that Congress has authorized the States to impose otherwise impermissible burdens on interstate commerce in ground water is not well-founded. The suggestion is based on 37 statutes in which Congress has deferred to state water law, and on a number of interstate compacts dealing with water that have been approved by Congress.

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[18] The reciprocity requirement cannot, of course, be justified as a response to another State's unreasonable burden on commerce. *A & P Tea Co.* v. *Cottrell*, 424 U. S. 366, 379–381 (1976).

Abstracts of the relevant sections of the 37 statutes relied upon by appellee were submitted in connection with the Hearings on S. 1275 before the Senate Subcommittee on Irrigation and Reclamation, 88th Cong., 2d Sess., 302–310 (1964). Appellee refers the Court to that submission but only discusses § 8 of the Reclamation Act of 1902, 32 Stat. 390. That section, it turns out, is typical of the other 36 statutes. It contains two parts. The first provides that "nothing in this Act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation." Such language defines the extent of the federal legislation's preemptive effect on state law. *New England Power Co.* v. *New Hampshire*, —— U. S. ——, —— (1982); *Lewis* v. *BT Investment Managers, Inc.*, 447 U. S. 27, 49 (1980). The second part provides that "the Secretary of Interior, in carrying out the provisions of this Act, shall proceed in conformity with such laws." Such language mandates that questions of water rights that arise in relation to a federal project are to be determined in accordance with state law. See *California* v. *United States*, 438 U. S. 645 (1978).

The interstate compacts to which appellee refers are agreements among States regarding rights to surface water. See The Council of State Governments, Interstate Compacts and Agencies 25–29, 31–32 (1979). Appellee emphasizes a compact between Nebraska and Colorado involving water rights to the South Platte River, see 44 Stat. 195 (1926), and a compact among Nebraska, Colorado, and Kansas involving water rights to the Republican River, see 57 Stat. 86 (1943).

Although the 37 statutes and the interstate compacts demonstrate Congress' deference to state water law,[19] they do not indicate that Congress wished to remove federal constitutional constraints on such state laws. The negative implications of the Commerce Clause, like the mandates of the Fourteenth Amendment, are ingredients of the *valid* state law to which Congress has deferred. Neither the fact that Congress has chosen not to create a federal water law to govern water rights involved in federal projects, nor the fact that Congress has been willing to let the States settle their differences over water rights through mutual agreement,[20] constitutes persuasive evidence that Congress consented to the unilateral imposition of unreasonable burdens on commerce. In the instances in which we have found such consent, Congress' "'intent and policy' to sustain state legislation from attack under the Commerce Clause" was "'expressly stated.'" *New England Power Co.* v. *New Hampshire*, *supra*, at —— (quoting *Prudential Ins. Co.* v. *Benjamin*, 328 U. S. 408, 427 (1946)).[21] Cf. *Merrion* v. *Jicarilla Apache Tribe*, —— U. S. ——, ——, n. 21 (1982).

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[19] "The history of the relationship between the Federal Government and the States in the reclamation of the arid lands of the Western States is both long and involved, but through it runs the consistent thread of purposeful

The reciprocity requirement of Neb. Rev. Stat. § 46-613.01 violates the Commerce Clause. We leave to the state courts the question whether the invalid portion is severable. The judgment of the Nebraska Supreme Court is reversed and the case is remanded for proceedings not inconsistent with this opinion.

It is so ordered.

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and continued deference to state water law by Congress." *California* v. *United States*, *supra*, at 653.

[20] Similarly, this Court has encouraged States to resolve their water disputes through interstate compacts rather than by equitable apportionment adjudication. See *Colorado* v. *Kansas*, 320 U. S. 383, 392 (1943).

[21] See, *e. g.*, *Prudential Ins. Co.* v. *Benjamin*, 328 U. S. 408 (1946) (McCarran Act, 59 Stat. 33 (1945)); *International Shoe Co.* v. *Washington*, 326 U. S. 310 (1945) (§ 1606(a) of the Internal Revenue Code, 53 Stat. 1391 (1939)); *Whitfield* v. *Ohio*, 297 U. S. 431 (1936) (Hawes-Cooper Act, 45 Stat. 1084 (1929)); *In re Rahrer*, 140 U. S. 545 (1891) (Wilson Act, 26 Stat. 313 (1890)).

SUPREME COURT OF THE UNITED STATES

No. 81-613

JOY SPORHASE AND DELMER MOSS, ETC., APPELLANTS *v.* NEBRASKA, EX REL., PAUL L. DOUGLAS, ATTORNEY GENERAL

APPEAL FROM THE SUPREME COURT OF NEBRASKA

[July 2, 1982]

JUSTICE REHNQUIST, with whom JUSTICE O'CONNOR joins, dissenting.

The issue presented by this case, and the only issue, is whether the existence of the Commerce Clause of the United States Constitution by itself, in the absence of any action by Congress, invalidates some or all of § 46-613.01 of the Nebraska Revised Statutes, which relates to groundwater. But instead of confining its opinion to this question, the Court first quite gratuitously undertakes to answer the question of whether the authority of Congress to regulate interstate commerce, conferred by the same provision of the Constitution, would enable it to legislate with respect to groundwater overdraft in some or all of the States.

That these two questions are quite distinct leaves no room for doubt. Congress may regulate not only the stream of commerce itself, but activities which affect interstate commerce, including wholly intrastate activities. See, *e. g.*, *Kirschbaum Co.* v. *Walling*, 316 U. S. 517 (1942); *United States* v. *Darby*, 312 U. S. 100 (1941); *Houston & Texas Ry.* v. *United States*, 234 U. S. 342 (1914). The activity upon which the regulatory effect of the congressional statute falls in many of these cases does not directly involve articles of commerce at all. For example, in *Kirschbaum*, the employees were engaged in the operation and maintenance of a loft building in which large quantities of goods for interstate commerce were produced; no one contended that these employees themselves, or the work which they actually performed, dealt with articles of commerce. Nonetheless, the provisions of the Fair Labor Standards Act were applied to them because Congress extended the terms of the Act not only to those who were "engaged in commerce" but to those who were engaged "in the production of goods for commerce." *Id.*, at 522.

Thus, the authority of Congress under the power to regulate interstate commerce may reach a good deal further than the mere negative impact of the Commerce Clause in the absence of any action by Congress. Upon a showing that groundwater overdraft has a substantial economic effect on interstate commerce, for example, Congress arguably could regulate groundwater overdraft, even if groundwater is not an "article of commerce" itself. See, *e. g., Hodel* v. *Virginia Surface Mining & Recl. Assn.*, 452 U. S. 264, 281–283 (1981); *id.*, at 310–313 (REHNQUIST, J., concurring in judgment); *Wickard* v. *Filburn*, 317 U. S. 111 (1942). It is therefore wholly unnecessary to decide whether Congress could regulate groundwater overdraft in order to decide this case; since Congress has not undertaken such a regulation, I would leave the determination of its validity until such time as it is necessary to decide that question.

The question actually involved in this case is whether Neb. Rev. Stat. § 46–613.01 runs afoul of the unexercised authority of Congress to regulate interstate commerce. While the Court apparently agrees that our equitable apportionment decrees in cases such as *Wyoming* v. *Colorado*, 353 U. S. 953 (1957), and the execution and approval of interstate compacts apportioning water have given rise to "the legal expectation that under certain circumstances each State may restrict water within its borders," *ante*, at 14, it insists on an elaborate balancing process in which the State's "interest" is weighed under traditional Commerce Clause analysis.

I think that in more than one of our cases in which a State has invoked our original jurisdiction, the unsoundness of the Court's approach is manifest. For example, in *Georgia* v. *Tennessee Copper Co.*, 206 U. S. 230, 237 (1907), the Court said:

> "This is a suit by a State for an injury to it in its capacity of *quasi*-sovereign. In that capacity the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air."

Five years earlier, in *Kansas* v. *Colorado*, 185 U. S. 125, 142, 145–146 (1902), the Court had made clear that a State's quasi-sovereign interest in the flow of surface and subterranean water within its borders was of the same magnitude as its interest in pure air or healthy forests.

In my view, these cases appropriately recognize the traditional authority of a State over resources within its boundaries which are essential not only to the well-being, but often to the very lives of its citizens. In the exercise of this authority, a State may so regulate a natural resource so as to preclude that resource from attaining the status of an "article of commerce" for the purposes of the negative impact of the Commerce Clause. It is difficult, if not impossible, to conclude that "commerce" exists in an item that cannot be reduced to possession under state law and in which the State recognizes only a usufructuary right. "Commerce" cannot exist in a natural resource that cannot be sold, rented, traded, or transferred, but only *used*.

Of course, a State may not discriminate against interstate commerce when it regulates even such a resource. If the State allows indiscriminate intrastate commercial dealings in a particular resource, it may have a difficult task proving that an outright prohibition on interstate commercial dealings is not such a discrimination. I had thought that this was the basis for this Court's decisions in *Hughes* v. *Oklahoma*, 441 U. S. 322 (1979), *Pennsylvania* v. *West Virginia*, 262 U. S. 553 (1923), and *West* v. *Kansas Nat. Gas Co.*, 221 U. S. 229 (1911). In each case, the State permitted a natural resource to be reduced to private possession, permitted an *intrastate* market to exist in that resource, and either barred *interstate* commerce entirely or granted its residents a commercial preference.[1]

By contrast, Nebraska so regulates groundwater that it cannot be said that the State permits any "commerce," intrastate or interstate, to exist in this natural resource. As with almost all of the Western States, Nebraska does not recognize an absolute ownership interest in groundwater, but grants landowners only a right to *use groundwater on the land from which it has been extracted.* Moreover, the landowner's right to use groundwater is limited. Nebraska landowners may not extract groundwater "in excess of a reasonable and beneficial use upon the land in which he owns, especially if such use is injurious to others who have substantial rights to the waters, and if the natural underground supply is insufficient for all owners, each is entitled to a reasonable proportion of the whole." *Olson* v. *City of Wahoo*, 124 Neb. 802, 811, 248 N.W. 304, 308 (1933). With the exception of municipal water systems, Nebraska forbids any transportation of groundwater off the land owned or controlled by the person who has appropriated the water from its subterranean source. *State ex. rel. Douglas v. Sporhase*, 208 Neb. 703, 710, 305 N.W. 2d 614, 619 (1981). See App. 68–69.

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[1] Similarly, in *City of Altus* v. *Carr*, 255 F. Supp. 828 (W.D. Tex.), aff'd mem., 385 U. S. 35 (1966), Texas placed no restrictions upon the use or the intrastate sale of groundwater. The "rule in Texas was that an owner of land could use all of the percolating water he could capture from the wells on his land for whatever beneficial purposes he needed it, on or off the land, and could likewise sell it to others for use on or off the land and outside the basin where produced, just as he could sell any other species of property." 255 F. Supp., at 833, n. 8. Texas' absolute ownership rule is an anomaly among the Western States. See 5 R. E. Clark, Waters and Water Rights § 441 (1972 & 1978 Supp.). In Nebraska, as in most of the Western States, groundwater is not treated as "any other species of property."

Nebraska places additional restrictions on groundwater users within certain areas, such as the portion of appellant's land situated in Nebraska, where the shortage of groundwater is determined to be critical. Water users in appellants' district are permitted only to irrigate the acreage irrigated in 1977, or the average number of acres irrigated between 1972 and 1976, whichever is greater, and must obtain permission from the water district's board before any additional acreage may be placed under irrigation. The amount of groundwater that may be extracted is strictly limited on an acre-inch-per-irrigated acre basis. There are also detailed regulations as to the spacing of wells and the use and operation of flow meters. App. 71–82.

Since Nebraska recognizes only a limited right to use groundwater on land owned by the appropriator, it cannot be said that "commerce" in groundwater exists as far as Nebraska is concerned. Therefore, it cannot be said that Neb. Rev. Stat. § 46–613.01 either discriminates against, or "burdens," interstate commerce. Section 46–613.01 is simply a regulation of the landowner's *right to use* groundwater extracted from lands he owns within Nebraska.[2] Unlike the

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[2] Unlike several other Western States, Nebraska does not entirely forbid groundwater extracted in Nebraska to be used in other States. See Brief for the City of El Paso as *Amicus Curiae* 2, n. 3. As noted by the Court, Nebraska merely places conditions on such a use of the State's groundwater. A permit must be obtained from the Nebraska Department of Water Resources. If the requested withdrawal of groundwater is determined to be "reasonable, not contrary to the conservation and use of ground water, and . . . not otherwise detrimental to the public welfare," a permit will be issued so long as the "state in which the water is to be used grants reciprocal rights to withdraw and transport ground water from that

Court, I cannot agree that Nebraska's limitation upon a landowner's right to extract water from his land situated in Nebraska *for his own use* on land he owns in an adjoining State runs afoul of Congress' unexercised authority to regulate interstate commerce.[3]

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state for use in the State of Nebraska." Id. § 46-613.01.

[3] The Court today invalidates only the reciprocity provision in § 46-613.01. *Ante*, at 15-16. Appellants, however, have never applied for the permit required by the Nebraska statute. I see nothing in the Court's opinion that would preclude the Nebraska Department of Water Resources from prohibiting appellants from transporting groundwater into the Colorado portion of their land until they obtain the permit required by the statute. I also see nothing in the Court's opinion that would preclude the Department of Water Resources from denying appellants a permit because of a failure to satisfy the remaining conditions in the statute.

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